

## Accountability Report Transmittal Form

Agency Name	<u>South Carolina Department of Transportation</u>
Date of Submission	<u>September 5, 2003</u>
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**South Carolina Department of Transportation  
Annual Accountability Report  
Fiscal Year 2002-2003**

**SECTION I – EXECUTIVE SUMMARY**

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**Description of the Department of Transportation:**

The South Carolina Department of Transportation (SCDOT) is charged with the responsibility of systematic planning, construction, maintenance, and operation of the state highway system and providing statewide support for mass transit services. SCDOT is responsible for managing the fourth largest state owned highway system in the nation.

**Mission and Values**

The mission of SCDOT is to provide a safe and efficient transportation system for the state of South Carolina. SCDOT builds and maintains roads and bridges, and administers mass transit services.

The values subscribed to by all SCDOT staff are described using the acronym RIGHT Team. As a member of the team, we do things the RIGHT way!

Respectful and supportive of others  
Integrity at all times  
Good at what I do, because I am competent and knowledgeable  
Honest and fair in all my actions  
Teamwork through communication

**Key Strategic Goals for Present and Future Years**

- Increase safety on South Carolina's transportation systems and within SCDOT.
- Improve the quality, efficiency and appearance of the State Highway System.
- Improve and expand the multi-modal transportation system in South Carolina.
- Enhance and implement integrated financial and project management systems.
- Improve employee skills, their work environment, and provide opportunities.
- Improve management of our property, equipment and technology.
- Provide the highest level of customer service.

Safety is our top priority at SCDOT. One of our greatest achievements this year was, thanks to many state leaders, making median barrier funding a reality - it is a successful program. SCDOT has been recognized in an independent study as one of the **top three state Departments of Transportation in the nation** for efficiency and productivity. We have partnered with the private sector and local governments to build trust and improve quality of life for all citizens. SCDOT is working hard to maintain a good working relationship with the Legislature to provide quality constituent service.

## Opportunities and Barriers

Two of the most pressing issues facing South Carolina are the condition of our state highways and the number of fatalities attributed to highway crashes. The main obstacle to overcome these issues is the amount of revenue available for improvements. SCDOT is seeking adequate funding to maintain and improve the fourth largest state maintained highway system in the country. The state highway system contains nearly **42,000 miles of roads and 8,200 bridges**. SCDOT is responsible for **65% of public roads** in South Carolina compared to a national average of 20%. However, SCDOT's funding, both on a per-capita and per-mile basis, is the lowest in the nation.

SCDOT continues to have serious safety concerns on the two-lane roads throughout the state. We also have a maintenance crisis. There is no funding source for the resurfacing of more than 25,000 miles of non-federally eligible secondary roads. State source highway funding is the lowest it has ever been in terms of constant dollars, yet SCDOT continues to identify innovative and creative means of getting the job done.

## Lowering Death Rate Due to Highway Crashes

**South Carolina has the third highest highway death rate in the nation.** The death rate is 53% higher than the national average, and 35% and 53% higher than our neighboring states of North Carolina and Georgia, respectively. The top goal of SCDOT's Strategic Plan is to increase safety on South Carolina's transportation systems and within the agency. We plan to do this by reducing the number of highway crashes, injuries, and fatalities in South Carolina by 5% through the development and implementation of a variety of statewide safety initiatives. The major challenge facing SCDOT is funding for safety improvements on South Carolina's secondary road system. Two out of three highway deaths occur on two-lane roads. Unfortunately, federal highway funds are not eligible for 78 percent of the secondary road mileage in South Carolina and SCDOT receives among the lowest state funding per mile of all states.

## Funding

Currently, South Carolina has the lowest receipts per mile of roadway under State control in the country. Considering all sources of revenue, **South Carolina receipts are \$28,652 per mile** of state-maintained roads. The next lowest in the country is West Virginia at \$34,762 and the **national average is \$169,287 per mile** of state-maintained roads.

SCDOT receives Federal-aid highway funds for improvements on the Federal Highway System. Typically, SCDOT can only use these funds for eligible restoration, rehabilitation, reconstruction, or improvement activities. Unfortunately, SCDOT can only use Federal highway funds on 41 percent (16,989 miles) of the roads under State control. Normal maintenance activities performed by SCDOT are not generally eligible for Federal funding. Thus, SCDOT uses its state revenue for Federal match, administration, maintenance of all roads (41,530 miles) and improvements to roads not on the Federal highway system (24,541 miles). Increased federal funding resulting from the Transportation Equity Act of the 21<sup>st</sup> Century also increased the required State match, which has approximately doubled since 1997. State revenue has not kept pace and SCDOT had to draw funds from its maintenance budget to match all Federal funds. As a result, SCDOT has no state-funded construction program and the agency has been forced to discontinue its secondary road-resurfacing program.



Because of this crisis, SCDOT is pursuing full funding to meet statewide construction, maintenance and safety needs. The agency is working with various private sector and legislative committees to develop support. **The total shortfall of funds now exceeds \$1.8 billion dollars per year.** Rather than continuing to pursue stopgap funding, SCDOT will seek to secure full funding for all program areas. The funding proposal will seek to accomplish the following goals:

- Resurface the state's highways, on average, every twelve years. Funding should be based on this standard.
- Create a state-funded program to make safety upgrades on the state's most dangerous roads that do not qualify for federal funding. This will reduce the highway fatality rate.
- Expand the state-source highway funding revenue base to include 50% fuel user fee revenues and 50% other revenues. This is how other states typically fund their highway programs. This is very important as the nation moves away from using carbon-based fuels, such as gasoline and diesel.
- Index state highway funding to adjust for inflation.

State highway funding per mile should be at least the same as peer states who, like South Carolina, have the majority of public roads under state control.

### **Major Achievements From the Past Year**

Major achievements will be described in length in the Business Results Section of this report. The highlights of some of the major achievements of SCDOT during FY 2001-2002 include the following:

- Construction was completed on Phase I of the Carolina Bays Parkway and opened to traffic on December 17, 2002.
- The South Carolina House of Representatives in a Concurrent Resolution recognized SCDOT in May 2003, for its efficiency and productivity as noted in the University of North Carolina, Charlotte Comparative Study of Highway Systems.
- The Pioneer Award was presented to SCDOT for its support of the Summer Transportation Institute, by the US Department of Transportation.
- The Blue Granite Award was presented to SCDOT for extraordinary service to the people of South Carolina in June 2003.
- In the two years since ground was broken for the new Cooper River Bridge, our contractor, Palmetto Bridge Constructors (PBC), is more than fifty percent complete with the project.



## SECTION II – BUSINESS OVERVIEW

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SCDOT is one of the largest state agencies and has a staff of approximately 5,000 men and women who work in all of the state's 46 counties and the central headquarters located in Columbia.

A 7-member transportation commission is the policy making body for SCDOT. The members, each representing a Congressional District, are appointed by the legislative delegations, with the Governor appointing the Commission Chairman. The Commission appoints the Executive Director, who carries out the daily operation of the agency and the direction of the staff.

Four Deputy Directors, who each manage a major division of the agency, assist the Executive Director. The divisions are Engineering, which is lead by the State Highway Engineer; Strategic Planning, Finance and Administration; Mass Transit; and Executive Support Services.

### Business Requirements

To place focus on the customer, SCDOT developed the following set of business requirements:

- Wise and efficient management and use of resources.
- Quality customer service.
- Trained and motivated workforce.
- Improved safety.
- Quality work performed in a timely manner.

### State Funding

Unlike most states, the vast majority of funding for SCDOT comes from state motor fuel user fees. These fees account for approximately 92 % of the state sources available to fund SCDOT. State funding is primarily used to fund maintenance, program administration, mass transit, and to match federal aid highway funds. The following chart shows the available state funds for FY 2003 and the categories in which they were expended.

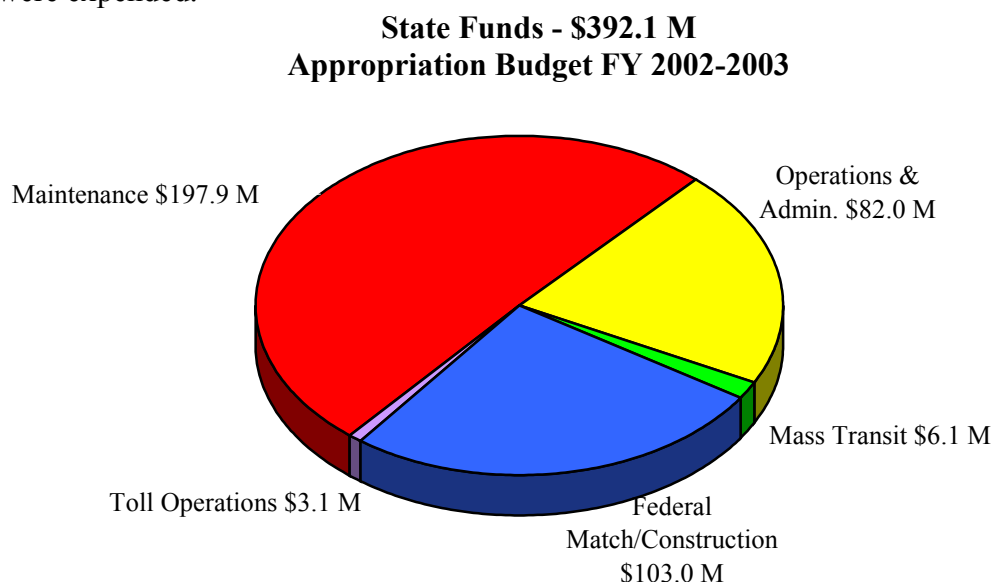


Figure II-1



## Accountability Report – FY 2003 Funding Obligation Plan

SCDOT relies totally on the federal-aid program for capital improvements. However, federal funds may only be used on 41% of the roads for which SCDOT has the responsibility. As a result, many needed capital improvements remain under funded. Maintenance on all roads for which SCDOT is responsible must be funded from state sources. Current available state funding is insufficient to meet maintenance needs. The following table shows the FY '03 funding obligation plan for both the Federal Aid Program, including state matching funds.

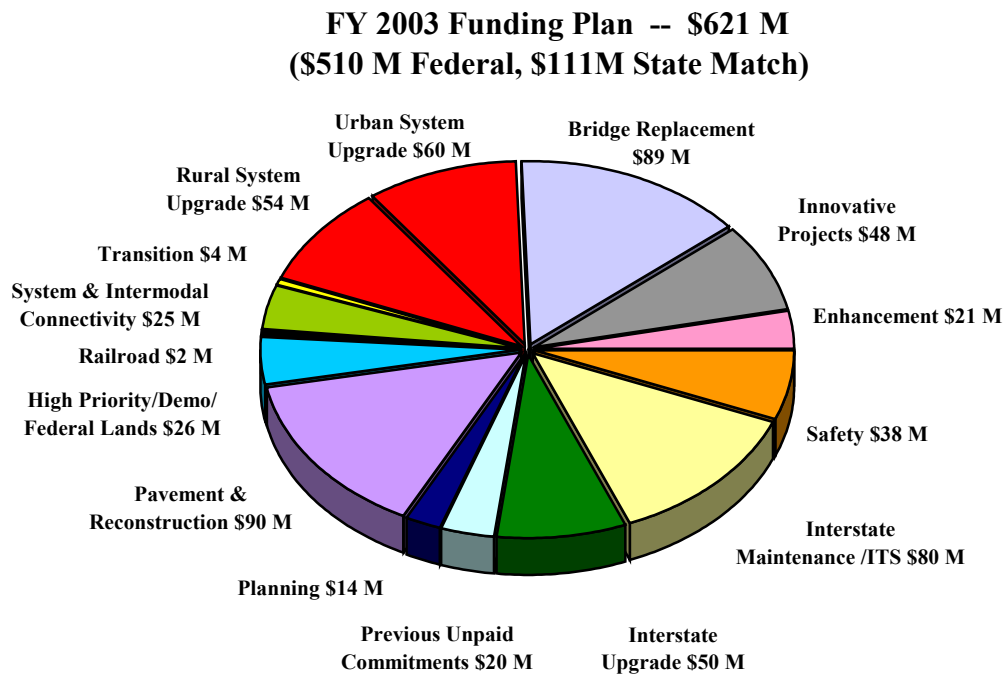


Figure II-2

## Key Customers and Suppliers

Approximately 79% of SCDOT's budget flows directly to the private sector. SCDOT has a number of key private sector partners that enhance our efficiency. SCDOT considers the Federal Highway Administration (FHWA) as a partner, but they can also be considered a customer. Other key customers of SCDOT are the motoring public traveling in South Carolina and those citizens who use public transportation. SCDOT partners with its customers by frequent interactions in public meetings, timely responses to correspondence, and personal interaction by the Commission and staff. SCDOT also has approximately 374 pre-qualified contractors and 415 certified DBE (minority and female) contractors. The Department does not pre-qualify design engineering consultants; on a normal design contract (based on an advertisement), SCDOT will receive approximately 35 proposals from consultants.



## **Key Suppliers**

When viewed from an economic perspective, SCDOT is among the largest businesses in South Carolina. There are approximately 17,000 suppliers in SCDOT's Automated Procurement System that provide goods and services to the agency. There are approximately 77 key suppliers to the agency.

## **Major Products and Services**

The major products and services are to build and maintain roads and bridges and to administer mass transit services to the citizens of South Carolina.

Others include:

- Statewide Intermodal Planning
- State Mapping
- Beautification of roadsides
- Operating and maintaining Rest Areas on the Interstates
- Work Zone Safety Program
- Outdoor Advertising Permits
- Pedestrian and Bicycle Accommodations
- Provide staff for State Infrastructure Bank (SIB) and manage SIB projects design and construction
- Research and Development of Construction Methods and Materials
- Incident Response Team (Blue Trucks)
- Provided toll-free "hotline" to take citizens' calls during emergencies
- Assist Governor's Safety Council and EMD with emergency situations and planning.
- Homeland Security



## SECTION III – ELEMENTS OF MALCOLM BALDRIGE

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### Malcolm Baldrige National Quality Award Criteria

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SCDOT is managed by incorporating the principles and seven elements of the Malcolm Baldrige Quality Award. This system has been institutionalized by the South Carolina General Assembly and the Budget and Control Board as the way South Carolina State Government is managed and operated. The seven elements are Leadership, Strategic Planning, Customer and Market Focus, Information and Analysis, Human Resource Focus, Process Management, and Business Results.

### CATEGORY 1: LEADERSHIP

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**How do senior leaders set, deploy, and communicate short and long term direction, performance expectations, organizational values, empowerment, innovation, organizational employment and learning, and ethical behavior?**

#### Short and Long Term Direction

The Executive Director meets regularly with her Executive Staff and Senior Staff to review and renew the goals and objectives in the agency's strategic plan. Both short and long-term directions are identified in the plan. The Executive Staff is comprised of the Executive Director, the State Highway Engineer; Deputy Director for Strategic Planning, Finance and Administration; Deputy Director for Executive Support; and the Deputy Director for Mass Transit. The Senior Staff is comprised of the four Deputies, division heads within headquarters, and the 7 engineering administrators within the districts. Meetings with the Executive Staff are held weekly and meetings with the Senior Staff are held quarterly. The Executive Director also regularly visits with employees in the counties to give information about the agency and to receive input from the employees in the field.

#### Performance Expectations

The Executive Director reviews monthly "dashboard gauges" that contain essential information related to SCDOT's priorities and performance as outlined in the SCDOT Strategic Plan. Those measures include:

- Safety (South Carolina Traffic Fatalities)
- Employee Vacancies
- Motorist Assistance Program Responses
- Miles of Cable Guardrail Installed
- Cash Balance
- Revenue
- Expenditures
- Federal Aid Obligations
- Debt Status
- Legal/Claims
- Mass Transit (Statewide Boardings for Regional Transportation Authorities only)
- Construction Contracts Underway



- DBE payouts and commitments
- Status of the Bonding Program
- High Priority Projects

Each objective that supports a goal in SCDOT's Strategic Plan has a performance measure. Employee performance is tied to SCDOT's vision, values, and goals as outlined in the Strategic Plan. Additionally, some organizational elements are using a 360° assessment.

## Organizational Values

The organizational values are a part of the development and deployment of the strategic plan. This plan is a living and breathing strategic plan, not just one that sits on a shelf and gathers dust. We began the strategic planning process in 1997. When the plan was developed, a cross-section of employees, representing every segment of the agency, participated in the development of the values for SCDOT. SCDOT employees strive to meet SCDOT values by doing things the right way! SCDOT developed a special embossed lapel pin to remind employees of its values and SCDOT's vision of --**"Public Trust: Earn it, Keep it!"**

## Recognition, Empowerment and Innovation

SCDOT employees are rewarded for their creativity and innovative ideas. SCDOT rewards innovation with three types of recognition. An On-the-DOT certificate is awarded as on-the-spot recognition of a noteworthy accomplishment or improvement in a work process or working condition. Any employee can initiate this award. While the certificate itself is an award many other items are available such as hats, shirts, etc., which encourage and promote employee pride. An On-the-DOT EXTRA is available for performance of a duty that is especially commendable. "On-the-DOT EXTRA" recognition is a cash award ranging from \$100 to \$250. And, *Idea Express!* enables employees to submit ideas for improving operations that result in the savings of time and/or money. Ideas accepted may result in cash awards depending on the savings generated.

Moreover, outstanding SCDOT employees are recognized annually as Employees of the Year. Eight employees representing the headquarters and the seven engineering districts are recognized as Employees of the Year. These employees are awarded various letters of commendation, a trophy, a certificate of Achievement from SCDOT's Executive Director, the Commission Chairman, and a letter of congratulations from the Governor. Additionally, 53 employees are recognized as Unit Employees of the Year and receive a trophy and letters of commendation.

## Ethical Behavior

"Public Trust: Earn it, Keep it" is the vision of SCDOT. All of our employees are advised of the State's Ethics Law. SCDOT has established policies and procedures to prevent unethical behavior. SCDOT has had a briefing on ethics at Senior Staff meetings and intends to have annual updates on this topic.

## Leadership Development

SCDOT takes seriously the responsibility to develop competent leaders within the agency. SCDOT has



developed and pursued continuous developmental programs for those presently charged with leading and managing.

As part of succession planning, two leadership development programs have been developed. The Strategic Training for Transportation Agency Representatives (STTAR) is a yearlong course for approximately sixteen agency employees who exhibit potential for promotion to senior leadership positions in the agency. The STTAR Program has just begun its sixth year. The magazine, *Engineering News Record*, selected the Executive Director as one of the nation's top 25 newsmakers in recognition of the STTARs Program.

SCDOT has developed a companion 8-month course, the Strategic Training and Education Program for the 21<sup>st</sup> Century (STEP-21), which is available for selected employees who show outstanding potential for mid-level managerial positions. This program is highly selective and has a maximum of 21 agency employees.

SCDOT has also developed a dynamic four-day course – Leadership Development for Supervisors. All managers and supervisors are required to take this course. In addition to these programs, twenty-four employees completed the Associate Public Manager Program during the year, one member of the Senior Staff completed the Executive Institute and two managers attended the Governor's EXCEL Program. Five managers were awarded the Certified Public Manager (CPM) credential.

### **How do senior leaders establish and promote focus on the customer?**

SCDOT's vision is, "Public trust: Earn it, Keep it!" SCDOT values are doing things the RIGHT way! Senior leaders of SCDOT focus on the customer by including public input in all SCDOT services. SCDOT has established formal partnerships with all its major partners and stakeholders. The public has many opportunities to actively participate in planning and developing of highway projects. In addition, SCDOT leadership tracks responses to inquiries by using a correspondence and task tracking system. In late 2000, The Moore School of Business completed a Customer Service Survey for the agency. The findings indicated that SCDOT was on the right track with initiatives to determine customer needs and how to satisfy those needs. A key business requirement is *Quality Customer Service*. The actions in this business requirement will be discussed in depth in "Category 3-Customer Focus" in this report.

SCDOT has also incorporated customer service as a strategic objective. Customer service is a key to our operations and is woven into business plans.

### **What key performance measures are regularly reviewed by the Department's Senior Leaders?**

The Senior Leadership reviews performance measures at least on a quarterly basis. The performance measures are part of the Strategic Plan and support each of the seven goals.

### **How do Senior Leaders use organizational performance review findings and employee feedback to improve their leadership effectiveness and the effectiveness of management throughout the organization?**

Some senior leaders use the 360° performance feedback measure to identify how they best can support the agency's employees. SCDOT is developing mechanisms to determine employee satisfaction. Many of the



major organizational units hold retreats to determine how the leadership can improve the quality of work life. During the past year, the elements of the Strategic Planning, Finance and Administration Division, Engineering Division, Executive Support Services Division, and the Office of Mass Transit conducted retreats.

**How does the organization address the current and potential impact of the public on its products, programs, services, facilities and operations, including associated risks?**

SCDOT uses a multitude of forums to determine and address highway and public transit issues that affect the public in South Carolina. The State Transportation Commission holds a monthly meeting in which stakeholders and the public are invited. While the General Assembly is in session, the Commission meets at SCDOT Headquarters to allow the Legislators the opportunity to attend and participate. The Commission encourages legislators and the general public to share their concerns. After the General Assembly concludes the Legislative Session, the Commission holds its monthly meetings at other locations around the state. Annually, SCDOT updates the State Transportation Improvement Plan, with input from the Councils of Governments (COG) and the Metropolitan Planning Organizations (MPO).

Public involvement is a key in our planning and developing of projects. Major projects usually begin by establishing local partnership. Public involvement is encouraged at all levels of a project, whether through public hearings, newspaper editorials and announcements.

**How does Senior Leadership set and communicate key organizational priorities for improvement?**

The Senior Leadership holds frequent meetings throughout the year and establishes objectives that support the seven Goals in SCDOT's Strategic Plan. These objectives and their measurements are cascaded to all organizational groups to ensure all of the agency's employees understand the direction necessary to achieve the goals.

**How does Senior Leadership and the agency actively support and strengthen the community? Include how the Department identifies and determines areas of emphasis.**

SCDOT is actively involved in strengthening the community in which the agency's people work and live. SCDOT's values help us in identifying the causes we support. SCDOT is totally committed to being a good corporate citizen. Throughout the year, employees participate in several volunteer programs such as "Families Helping Families", SCDOT C.A.R.E.S., and Habitat for Humanity. The Department is a recipient of the Blue Granite Award. We also facilitate the Bicycle and Pedestrian Advisory Committee and the Roadside Enhancement Beautification Committee in South Carolina. SCDOT is a large family of families deployed throughout the state.



## **CATEGORY 2: STRATEGIC PLANNING**

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### **2.1 What is your Strategic Planning Process, including participants, and how does it account for Customer needs and expectations, financial, societal, and other risks, human resource capabilities and needs, operational capabilities and needs and supplier/contractor capabilities and needs?**

Strategic planning and implementation in SCDOT is paramount to the operations of one of South Carolina's largest state agencies. The Deputy Director for Strategic Planning, Finance and Administration is the agency official charged with the development, deployment, and tracking of agreed to goals and objectives found in the Strategic Plan. This plan is the foundational document that guides daily and long-term operations.

The *SCDOT Strategic Plan is a living document* updated annually, with the most recent iteration developed and disseminated in the spring of 2002. The plan involves all of the agency's employees and partners. Key partners include the Federal Highway Administration (FHWA) and the Construction Resource Managers (CRM). (The CRM is a firm or group of firms that has experience and expertise in highway/bridge design and construction. Presently, the CRM is assisting SCDOT with the construction of over 200 jobs across the state.) The Executive Director began strategic planning early in 1997. The Plan began taking shape when a cross-section of SCDOT employees met in October 1997. The members of the South Carolina Adjutant General's Office facilitated the session and assisted this group in the development of the initial plan. An outside consultant assisted in subsequent updates to the plan.

As the plan matured, employees from across the state met at a retreat center near Aiken, South Carolina, to formulate five-year organizational goals and objectives. The Strategic Plan was then deployed to the headquarters elements and across the state to all district and county offices by the Senior Staff member responsible for the organizational element. Once the Strategic Plan was deployed to the divisions of the agency, business plans were developed to support the Strategic Plan. These business plans are the foundation of the agency's budget.

Each goal and objective in the Strategic Plan has a Senior Staff employee as the process owner. A performance measure has been developed for each objective. The process owner gives a quarterly update to his/her Deputy Director, as well as to the Office of Strategic Planning, Finance and Administration. A consolidated automated tracking document is accessible to all employees and gives agency decision-makers real time information on the status of the goal or supporting objective. A monthly "dashboard report" is given to the Executive Director that allows her to track the measures important for her to make informed decisions. The FHWA was involved throughout the Strategic Planning Process and the FHWA Division strategic plan complements SCDOT's plan.

Beginning in April 2003 the Agency Operations, Organization, and Policy Course was deployed statewide. To ensure consistency a Senior Manager was tasked to make the presentation live to each and every employee. This course shows the employee where they fit in the overall operations of the agency and their part in the Strategic Planning Process.

We are currently conducting an Employee Satisfaction Survey using the services of a consultant that has



assisted other Departments of Transportation. We will use the results to revisit the Strategic Planning process and the elements of the current plan. A diverse group of SCDOT employees will be assembled to review “where we are and where we should be.” After this diverse group has given input and we receive the results of the employee survey, SCDOT will develop a rejuvenated strategic plan and share it personally with our employees.

### **State Transportation Improvement Program**

A comprehensive document report, referred to as the State Transportation Improvement Program (STIP) is developed each year. The STIP lists various types of projects for work planned in the next five years. It reflects the collaborative efforts of the MPO, COG, and Regional Transportation Authorities (RTA). The development of the STIP is included in the Strategic Plan.

### **Statewide Multi-Modal Long Range Transportation Plan**

SCDOT receives input from the Councils Of Government (COG) and the Metropolitan Planning Organizations (MPO) in the development of the Statewide Inter-Modal Long Range Transportation Plan. Because of the rapid population growth in South Carolina, we are looking to develop a system that will satisfy the needs of both residents and visitors. Each COG has worked with the Regional Transportation Authority (RTA), ports, MPO, and other interests to develop its regional plan. The Office of Planning has taken the lead in this effort. Staff from the Mass Transit, Engineering, Rail, Multi-Modal, and the FHWA Offices have worked with regional planning staffs to develop the recommended "regional plan." The plan was presented to the SCDOT Commission in the fall of 2002. It will continue to be updated over the years.

## **2.2 How do you develop and track action plans that address your key strategic objectives?**

All strategic objectives are owned by a member of the Senior Staff and, if appropriate, an Action Officer. There is a Quarterly Review by the Executive Team. The Executive Team is alert for any deviations that may require the objective being modified or resourced.

## **2.3 How do you communicate and deploy your strategic objectives, action plans, and performance measures?**

An annual retreat is conducted for the primary purpose of updating the Strategic Plan, its supporting objectives and performance measures. This information is cascaded to all levels of the agency. Appropriate business plans to support the Strategic Plan are developed by each major organizational unit. Quarterly updates regarding progress on performance measures are distributed to all managers.

The Executive Director and senior staff members visit the County offices on a regular basis to give updates on SCDOT activities and Strategic Plan progress. The employees ask questions and provide feedback regarding the Strategic Plan.



## **CATEGORY 3: CUSTOMER FOCUS**

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### **3.1 Identify key customers and stakeholders.**

The key customers of SCDOT are the citizens of South Carolina, as well as those people who visit the state for business or pleasure and use the transportation system. Our customers' concerns are addressed through a variety of methods. Those methods include representation by the MPO and COG. The County Transportation Committees (CTC) and other constituency organizations also address their concerns and needs. The state is divided into 10 MPOs and 10 COGs. Rural transportation needs are addressed through 18 public transit providers. Key stakeholders in the delivery of services include the FHWA and the Federal Transit Administration (FTA).

### **3.2 How do you determine who your key customers are and what their key requirements are?**

South Carolina State Law, Section 57-3-10, determines our key customers. SCDOT determines its requirements by interacting with elected representatives at the state, county, and municipal levels. SCDOT also holds a multitude of public forums and performs specific surveys of different stakeholders.

In a recent customer survey conducted by the Institute for Public Service and Policy Research of the University of South Carolina, SCDOT identified some concerns of our customers. 826 citizens were interviewed. This survey, coupled with SCDOT's focus on customer service training, responsiveness to work requests, user friendly web site, Incident Response Team (Blue Trucks), and public meetings, allows the agency to learn and respond to the needs of its customers.

#### **Customer Service Training**

In January 2000, SCDOT initiated a training program to address the needs of our customers. In the program, conducted by Midlands Technical College, SCDOT employees were taught how to serve the public in a courteous and responsive manner. Since the inception of the program, 4,914 employees have attended the training, which is a full-day event.

#### **Internet Site**

SCDOT personnel redesigned the agency's award winning Internet site, [www.scdot.org](http://www.scdot.org), to make it compliant with federal accessibility requirements (Section 508) and to make it even easier for the public to find information. SCDOT was the first state agency to have the majority of its web site compliant with Section 508. Just like the original site, they designed it so the user can access the information they need with 3-4 mouse clicks and minimal download times. The site receives about 4,000 visits per day. The most popular sections are Construction Updates, SC Road Conditions and Traffic Cameras.

A separate site, [www.cooperriverbridge.org](http://www.cooperriverbridge.org), provides a wealth of information about the Cooper River Bridge replacement project. It includes sections about bridge design, the environment, building the bridge, traffic conditions, work opportunities, news updates, photo gallery, and history. The photo gallery enables the public to view thumbnails and full-size images of project pictures by selecting a month and a year. This web site receives about 800 visits per day.





### **3.3 How do you keep your listening and learning methods current with changing customer/business needs?**

SCDOT is actively involved in a myriad of professional associations and is active in the university community. Some of the organizations include the American Association of State Highway and Transportation Officials, the Transportation Research Board, the Transportation Association of South Carolina, and the American Society for Civil Engineers. SCDOT is involved in the local community and its employees are members of community and support organizations. SCDOT has made presentations to the American Association of General Contractors, the South Carolina Business Alliance, and the South Carolina Transportation Policy and Research Council. Regular meetings are held with the assistance of the General Contractors, the Consulting Engineers of South Carolina, the Asphalt Association, the Concrete Association, and the Trucking Association to discuss issues regarding the respective industries.

Public (customer) input is received during the planning and developing stages of highway projects. Many design changes occur because of public input. SCDOT held two training sessions during the past year to reinforce listening to customers and developing highway projects within its context.

### **3.4 How do you use information from customers/stakeholders to improve services or programs?**

The Director of Maintenance Office tracks the time it takes to process a work request, and based on the data, SCDOT is able to evaluate resourcing and process management. SCDOT's Incident Response Team ("Blue Truck") provides assistance to thousands of motorists annually. Motorists assisted by the Motorist Assistance Program are given a customer survey. The District Engineering Staff reviews the data in order to make improvements, as necessary, to the program. SCDOT tracks all correspondence received to insure a timely response and resolution to issues raised. The Oversize/Overweight Vehicle Permit Office surveyed its primary customers regarding the permitting process. Based on the information gained by the survey SCDOT's Oversize/Overweight Vehicle Permit Office revamped and automated their processing for permits.

### **3.5 How do you measure customer/stakeholder satisfaction?**

SCDOT measures customer and stakeholder satisfaction from the surveys obtained from selected programs. SCDOT also receives numerous comments from the public via its web site comment line. Some of the surveys include The Landowner and Displacee Opinion Surveys administered by the Department's Rights of Way Office and a Customer Service Survey given to every motorist who is assisted by the SCDOT Incident Response Program.

### **3.6 How do you build positive relationships with customers and stakeholders?**

**Public Meetings** – SCDOT invites the public to information meetings on all major highway projects. The designated Program Manager is present to answer all questions regarding the project. The projects are graphically displayed and color-coded for easy recognition. A recent addition has been 3D visualizations that give property owners a perspective on how a project will affect their property and the community. For example, visualization enabled business owners along US 501 in Conway to see how the elevated road and new interchanges would appear. Previously, the business owners were concerned about whether travelers



could see their signs. SCDOT created a 3D model of the Cooper River Bridge Replacement Project. Staff members regularly visit with Chambers of Commerce, Civic Clubs, and other organizations.

During FY 2002-2003, 79 public meetings were held and 132 presentations were made to various governmental and constituency organizations regarding road and highway improvements, which provided prompt responses to inquiries.

### **Intelligent Transportation Systems**

SCDOT has developed and deployed an Intelligent Transportation System (ITS). These systems include the latest transportation technologies, such as traffic cameras, highway advisory radios, changeable message signs, local Traffic Operations Centers and a central Traffic Management Central.

There are now 150 cameras in operation. Public television stations, WIS in Columbia, WSPA in Spartanburg, WYYF in Greenville, and WCSC in Charleston use live feed from the traffic cameras in their locale. These stations are also linked to SCDOT's web site. SCDOT also provides live feed to the South Carolina Emergency Management Office and to the Department of Public Safety. SCDOT's Traffic Engineering Office prepares plans for the installation of closed-loop traffic signal systems inside cities and on arterials outside urban areas. These systems provide monitoring of signals and allow changes to timing and progression from personal computers connected via telephone lines.

### **SCDOT Incident Response Program**

One of the more visible customer focused programs of SCDOT has been the Incident Response Program, which operates in heavily congested areas of the state to provide assistance to stranded motorists. The teams use specially equipped blue trucks with SCDOT's logo. Incident Response vehicles are equipped with fuel, water, and tools to enable quick repairs for disabled motor vehicles. The Incident Responders have contact with the Highway Patrol and other emergency responders. SCDOT continues to build on the program as part of the ITS. Figure 3-1, depicts the number of motorists the SCDOT Incident Response Program has assisted in the past 3 fiscal years.

<b>AREAS</b>	<b>FY 2001</b>	<b>FY 2002</b>	<b>FY 2003</b>
Columbia	7,089	7,477	8,639
Upstate (Greenville, I-85 Construction, & Spartanburg)	13,312	10,937	12,103
Rock Hill	5,071	4,058	4,016
Charleston	11,440	12,462	14,880
Anderson	1,645	6,447	9,122
Myrtle Beach	0	8,299	10,313
Beaufort	0	388	1,175
Florence	0	478	8,184



<b>Total Responses</b>	<b>38,557</b>	<b>50,546</b>	<b>68,432</b>
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Figure 3-1



## Responses to the 2003 Winter Storm

On January 23, 2003, a snowstorm hit the state of South Carolina and SCDOT was ready to mitigate the affects of the storm. In addition to the Maintenance Forces and Incident Response Teams, the Department operated a Weather Call Center with an active Internet Site. From January 20th – 25th, SCDOT's Internet site had close to 65,000 visitors, most of which visited on Thursday the 23rd with nearly 35,000 visitors. Most people accessed the snow/ice road conditions and/or traffic cameras. Volunteers from SCDOT, FHWA, and its partners staffed the Road Conditions Help Line on a 24-hour a day basis to assist over 6,000 citizens. The chart below shows the call volume on an hourly basis.

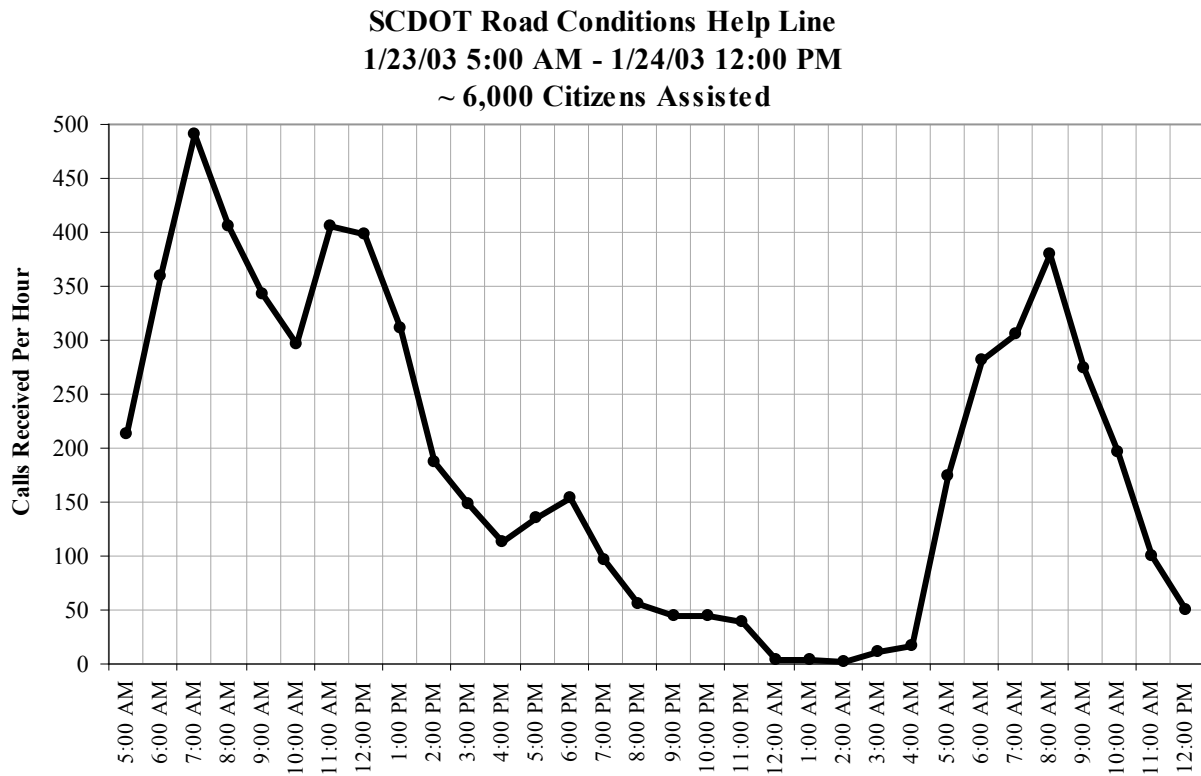


Figure 3-2

## Reduction of the Condemnation Rate

SCDOT made significant strides in improving public satisfaction in the appraisal and right-of-way acquisition process, which is an indication of customer satisfaction. The condemnation rate for FY 2002-2003 is 11% as compared with 12% from the previous year. SCDOT continually strives to reduce our condemnation rate by reaching amiable settlements for rights-of-way acquisition. SCDOT has established a goal of reducing this rate by 1% per year, until it reaches a level where it is no longer cost effective to try to reduce.

## **CATEGORY 4: INFORMATION AND ANALYSIS**

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### **4.1 How do you decide which operations, processes and systems to measure?**

During SCDOT's strategic planning development process, the agency developed a set of key measures as indicators of how well it is achieving the agreed upon objectives. All key measures relate to the business requirements. Each objective has a measure and progress is reported quarterly to the Division of Strategic Planning, Finance and Administration. The Executive Director and the Deputy Directors, as required, review the data.

SCDOT provides data related to the 12 performance measures of highway expenditure and system performance to the FHWA. This data is used for a variety of reports, such as the Annual Comparative Performance of State Highway Systems published by the University of North Carolina, Charlotte, Center for Interdisciplinary Studies. We also review data developed by the FTA for comparison of mass transit operations. SCDOT is a member of several professional organizations, including the American Association of State Highway and Transportation Officials (AASHTO) and the Transportation Research Board (TRB), which also provide comparative data. Additionally, every goal in the Strategic Plan and the supporting objectives contain a measure.

### **4.2 How do you ensure data quality, reliability, completeness, and availability for decision-making?**

SCDOT has developed various information systems and has adopted the use of AASHTO developed Shareware. SCDOT established a Construction Quality Management Team to ensure construction and environmental standards are being followed. Seven key areas are inspected, including Bridges, Structures, and Foundations, Erosion Control, Estimates/Project Records, Field Construction Items, Sampling and Testing, and Traffic Control/Safety. The team makes unannounced visits to the construction sites throughout South Carolina. In addition, a Maintenance Quality Management Team was established by the Director of Maintenance to ensure compliance with applicable laws and policies. The team inspects all maintenance facilities and operations. Their review includes Environmental Compliance, Management Practices, Inspection of equipment and the maintenance yards and road maintenance.

### **4.3 How do you use data/information analysis to provide effective support for decision-making?**

The Executive Director has a monthly set of measures used as "dashboard indicators" that help her determine the pulse of the agency and how it is performing its mission. Quarterly, the Senior Staff and Process Owners review measures related to their divisions. SCDOT uses data from the South Carolina Department of Public Safety to analyze traffic accidents.

### **4.4 How do you select comparative data and information?**

SCDOT uses comparative data from other transportation agencies across the nation, as well as information provided by professional organizations such as AASHTO and TRB. Providing the public, business partners, and employees with access to timely information is an essential part of providing first-class services. SCDOT continues to implement information technology solutions "just in time" to match the demands of a technology driven workforce. SCDOT has a number of automated systems that allows it to



select data for timely decision-making.

## **CATEGORY 5: HUMAN RESOURCE FOCUS**

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### **5.1 How do you and your managers/supervisors encourage and motivate employees to develop and utilize their full potential?**

SCDOT makes a significant investment in professional development. The Department has developed a new method of training deployment using the University Concept. SCDOT University encompasses general and specific skill training that begins with the New Employee Orientation up to the Pre-Retirement Seminar. SCDOT's annual program includes professional development opportunities for employees at all stages of their career. SCDOT encourages creativity and innovation. SCDOT uses several mechanisms, including the "On-the-DOT Award" and the "On-the-DOT-EXTRA," as well as performance bonuses, pending availability of funds. In an effort to retain valuable employees who are eligible for retirement, counseling efforts were initiated advising employees of their benefits under the TERI Program. As a result of these efforts to date, a total of 381 employees have enrolled.

SCDOT remains steadfast in its commitment to Equal Employment Opportunity and our belief that "a diverse workforce represents a higher value than one which is homogeneous". We remain dedicated to attracting, recruiting, retaining, respecting and providing equal opportunities to a diversified and representative workforce. Currently, minorities and females represent 48 percent of the Agency's total workforce. The Agency's Affirmative Action Plan is a working document, utilized daily, ensuring that areas of underutilization are constantly monitored.

Our "Recruitment Teams", comprised of a diversified group of individuals from various job categories within the Agency, continue to be utilized on an ongoing basis. Each "Recruitment Team" is selected based upon current employment needs, as well as, the specific institution or group visited. In underutilized areas, these efforts are focused on minorities and females. The "Student Summer Employment Program" continues to enhance recruitment efforts directed to attracting college students. This program includes a one day Agency orientation, supervisor performance reviews, student program evaluation reviews and exit interviews. The enhanced program, being in its second year, yielded twenty-five (25) return students.

Last year, Human Resources Services began to address ways to meet customer needs more effectively. A HR newsletter was formulated to improve communication. This newsletter is designed to keep SCDOT employees apprised of HR issues and "happenings". Human Resources Services has sent newsletters to all employees within the last six months. The letters include useful information from the various HR areas, such as Employee Relations, Benefits, Classification and Compensation, Records, and an inspirational message from the HR Director. All future HR communications will be included in the Agency's newspaper "The Connector". Our HR website continues to be a source of information.

We have also reinstated meetings with District Personnel Coordinators in an effort to maintain open lines of communication. Currently, these meetings are being held on a monthly basis. The HR Benefits area continues its counseling in an effort to directly advise employees who were/are eligible for retirement as to what their actual benefit would be if they were to participate in the TERI Program. In an effort to expand services, the Employee Benefits Advisors have made arrangements to provide District/Headquarters assistance and training on the day to day mechanics of processing benefits paperwork as well as advising on benefits questions or concerns. These individuals will work both in and out of the office and be



accessible via laptop and phone when in the field offices.

In reviewing the overall effectiveness of HR, a determination was made that an office restructuring would be beneficial. This restructuring included combining the area of Employee Relations and Benefits and dividing the functions of the Records area between Classification and Compensation, as well as, Employee Relations/Benefits. We anticipate this move will enable the office to function at a higher level of productivity by increasing cross training for all employees.

**How do you identify and address key developmental and training needs, including job skills training, performance excellence training, diversity training, management/leadership development, new employee orientation and safety training?**

**Developmental and Training Needs**

Once a new employee is hired, SCDOT begins with an “orientation session” and indoctrinates the person into the RIGHT Team. As our employees progress in their service, we afford training and development opportunities to allow them to maximize their potential. Some of the major training opportunities provided by SCDOT include:

- Adult Education
- Engineer Development Program
- Leader Development for Supervisors
- Maintenance Foreman Training
- Strategic Training and Education Program for the 21<sup>st</sup> Century (STEP-21)
- Strategic Training for Transportation Agency Representatives (STTAR)
- Tuition Assistance Program

The Department initiated a Workforce Planning Program to assist in meeting future requirements of a competent workforce. In a joint venture with Clemson University, the Department will be able to take actions to assure the agency has the right number of people in the right jobs at the right time. Clemson University has assembled a cross functional team to develop the project.

**5.3 How does your employee performance management system, including feedback to and from employees, support high performance?**

SCDOT’s Employee Performance Management System (EPMS) was revised in 2002 adding an Employee Individual Training Plan to the Planning stage. This addition allows the employee and the supervisor to jointly identify training for the employee’s development. The EPMS is a vehicle used by the Department to link the employee to the Department’s values and the Strategic Plan. During the planning stage, the employees are afforded the opportunity to give feedback on their needs. Counseling and coaching throughout the rating period afford the employee the opportunity to excel, and at the conclusion of the rating period, the employee again is afforded the opportunity to give feedback.

**5.4 What formal and or informal assessment methods and measures do you use to determine employee well being, satisfaction and motivation?**



SCDOT's formal methods include monitoring the rate of employee turnover, promotions, disciplinary actions, grievances and mediations. The Department is now deploying an Employee Satisfaction Survey with the assistance of a consultant who has assisted other Departments of Transportation. All employees view a video message from the Executive Director. The survey is being administered with the assistance of STTAR and STEP-21 Leadership Program Alumni.

The management of SCDOT employees begins by linking classification, compensation, and recruiting to SCDOT's Strategic Plan. This management process is on a continuum, from recruiting until separation from service. SCDOT is a caring organization, and it begins by caring for our own employees.

Another feedback mechanism is the Women's Forum. Based on information provided in the 1997 State Task Force on Women in the Workforce, SCDOT formed a statewide committee to develop a series of Women's Forums addressing the needs of our female workforce. In FY 2001-2002, SCDOT conducted its third series of statewide Women's Forums. The 2002 Forums included speakers addressing topics such as, "How to Handle Stress," Financial Management, as well as opportunities for women in the workplace. Participants were also given the opportunity to discuss their needs and concerns with the Executive Director. The next series of Women's Forums are scheduled for FY 2004.

### **5.5 How do you maintain a safe and healthy work environment?**

SCDOT has an active Health and Wellness Program managed by a Registered Nurse. The program is designed to promote, protect, and improve the health of SCDOT employees by increasing their awareness of personal health risks. Most SCDOT work locations have a volunteer Wellness Coordinator to aid communications between the medical staff and employees. An annual Health Risk Screening is provided to all employees on a voluntary basis. A questionnaire is completed by the employee that records their medical history and a complete blood work-up is done to identify medical problems. All screenings include a consultation and referral to their physician, if necessary. A total of 3,278 employees took advantage of the Health Screenings in FY 2002-2003.

### **5.6 What is the extent of your involvement in the community?**

SCDOT is totally committed to being a good corporate citizen. Throughout the year, employees participate in numerous volunteer programs such as:

- "Adopt-a-DOT Family"
- Habitat for Humanity
- American Heart Walk
- United Way
- Community Health Charities
- SCDOT CARES (Cares About Roads, Environment and Safety) – a program for elementary school classes
- First Steps – prepares employees to assist their preschool children and grandchildren for school readiness
- K-12 Parenting Workshop – allows interested individuals to attend parenting workshop during lunch
- Lunch Buddies Program – provides voluntary mentoring of underprivileged children by SCDOT





employees

- Summer Transportation Institute exposes secondary school students to a series of academic experiences designed to motivate them toward professions in the transportation industry. (Partnerships with FHWA, SCDPS, South Carolina State University (SCSU), Benedict College and Denmark Technical College.)
- Urban Youth Corp. is a youth employment and training program established in partnership with local municipalities, Indian tribes or nonprofit organizations. (Partnership with FHWA.)
- Participation in the State Fair
- “Back to School Bash”
- STTAR Scholarship Program
- Toastmasters (not limited to SCDOT employees)
- March of Dimes-Walk America Fundraiser by the STEP-21 class \$3,454.00 was raised.



## **CATEGORY 6: PROCESS MANAGEMENT**

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### **6.1 Key design and delivery processes for services**

All SCDOT design and delivery processes relate to the mission of building and maintaining roads and bridges and administering mass transit services. Therefore, the key processes are as follows:

- Planning and Public Input
- Pre-Construction Activities (Environmental Document, Design, and Rights of Way Acquisition)
- Construction
- Maintenance and Traffic Operations
- Coordination of Public Transit Activities

SCDOT depends on specialized technology and continuously incorporates new technologies into the processes by developing more efficient systems and by leveraging current technology. Some of the software systems that were incorporated were:

- Project Web (web-based road plans)
- Site Manager™ (construction management)
- Highway Maintenance Management System (daily work and planning)
- Bridge Management System (detailed analysis of bridge conditions and needs)
- Pavement Management System (pavement quality indicator)
- Road Inventory Management System (includes traffic density and pavement quality)
- Electronic Bidding for highway construction contracts
- Bid Analysis and Management System

### **6.2 Meeting Key Performance Requirements**

SCDOT ensures that key performance requirements are met by the development of performance measures that are incorporated in the SCDOT Strategic Plan. Additionally, process owners are held accountable and are assessed in the annual EPMS.

During FY 2002-2003, the Office of Construction continued deploying Quality Assurance Teams to ensure that roads and bridges are constructed to specification and that quality materials are used throughout the project. The Maintenance Office also develops a quality assurance team to review maintenance activities in the field. The Research and Materials Laboratory staff (including district laboratories in Charleston, Greenville, and Florence) provide technical assistance to district and Construction Resource Management (CRM) personnel on materials matters statewide. Field technicians and materials engineers from the central and district laboratories routinely visit projects statewide in order to assure that proper sampling and testing procedures are being followed and that all field testing equipment is calibrated and is in proper working order.

### **Supplier/Consultant Support**

SCDOT is providing customer service to Design/Build contractors by providing oversight and technical



services from our Research and Materials Laboratory. Inspectors from the Research and Materials Laboratory, who are trained and certified in all areas of sampling and testing, have been temporarily assigned to the quality assurance monitoring of such projects. SCDOT has provided these quality assurance services for all construction projects.

### **QC/QA Technician Certification**

The Research & Materials Laboratory has successfully found new ways to meet the increasing demands from SCDOT consultants, contractors, and Construction Resource Management (CRM) personnel requiring inspection and testing certification. Asphalt technician certification has been administered through Clemson University's Civil Engineering Department for several years; concrete and earthwork inspector certification will be administered through the University of South Carolina and Clemson University, respectively. By moving the administration of these programs from the Research and Materials Laboratory to the universities, SCDOT has been able to offer additional classes to meet the increased demand. The movement provides a means for keeping the Research and Materials Laboratory engineers and technicians involved in the course instruction, while keeping from having to increase the number of SCDOT personnel to provide this increased certification need. SCDOT has certified over 850 technicians.

### **Research**

In FY 03, the Department received \$2,167,260 in Federal funds for research under the State Planning and Research (SPR) Program. This amount reflects a decrease of approximately 10% in Federal research funds received in FY 2002. Most projects included in the program require a 20% state match. Though funding was reduced, efforts have continued to expand and broaden the scope of the research program to include all areas of the Department as well as to emphasize goals and objectives contained in the Strategic Plan.

Providing a safe transportation system, not only for the traveling public but also for those constructing or maintaining the system, remains a goal of the Department and an emphasis area for research. Two studies continued in FY 03 related to work zone safety. Another study was completed that investigated randomly selected fatal crashes on rural two-lane roads in the state and suggested possible countermeasures for improving safety on the roads. Also in FY 03, two research projects were initiated that addressed the Department's goal of enhancing skills and providing opportunities for employees. One study added two additional training modules to the Resident Construction Engineer Academy. The other study will develop a workforce plan for the Maintenance Trades Specialist series. Finally, a research project was initiated related to improving customer service. The study, "Customer Input Concerning Highway Maintenance," will use a survey to identify what the users of the highway system in South Carolina want and expect from maintenance operations for consideration in development of future programs

### **Material Source Monitoring**

A key service provided by the Research and Materials Laboratory is the consistent review and monitoring of the materials sources for construction projects. To accomplish this monitoring, the Research and Materials Laboratory maintains 48 product listings for a host of products ranging from aggregate sources to pipe gaskets to adhesives for raised pavement markers. This product information is now available for SCDOT personnel and our business partners by selecting Approved Materials on the agency's Internet site under the "Doing Business with SCDOT" section.



### **6.3 Key Support Processes**

The key support processes of SCDOT include those activities that provide administrative and logistical support. These processes include Administration, Information Technology Services, Supply and Equipment, Facilities Engineering, Finance and Accounting, Legal, and Human Resource Services. All key support processes are aligned to support SCDOT's mission and are linked to support the goals in the Strategic Plan. The people that perform the support processes are focused on the mission of SCDOT. They are part of a larger process of building and maintaining roads and providing mass transit services. The 5 business requirements of SCDOT govern its activities.

### **6.4 Management of Key Suppliers/Contractors/Partner Interactions and Processes to Improve Performance**

SCDOT has established an Office of Construction Resource Management (CRM) Operations headed by an engineering director who coordinates and supports CRM Operations. SCDOT uses a variety of methods to improve performance of key suppliers, contractors, and partners. SCDOT has a well-established Quality Assurance Program supported by the Research and Materials Laboratory, Contract Audit Services, and a Procurement monitoring process. SCDOT Program Managers are involved in construction projects from the beginning until project completion. The Director of CRM Operations monitors the work product and costs of the Construction Resource Manager Program.

Specifically, the Research and Materials Laboratory plays an important role in testing highway maintenance materials that are received by the field for use in highway maintenance activities. All materials received must meet stringent agency requirements, prior to being used in maintaining the highways, roads and bridges.

All quality requirements are communicated to vendors and suppliers through bid specifications and drawings, pre-approved product lists established by the Research and Materials Laboratory, and through product demonstration and testing with the New Products Evaluation Committee. The Procurement Office is a participant on the New Products Evaluation Committee.

SCDOT's Procurement Office provides business assistance and training to suppliers regarding their work processes and improvement through pre-bid, pre-award, and post-award contract meetings. SCDOT meets with vendors that want to be added to its vendor/bidder database to discuss the applicability of the products and services they offer and SCDOT's needs. The Procurement Office schedules meetings with vendors to improve contractual relationships and to better understand the vendor's needs, as well as relaying SCDOT's needs. SCDOT has built strong partnering relationships through this process.

### **6.5 Mass Transit**

During July 2003 the Federal Transit Administration conducted a State Management Review of Mass Transit operations. Nineteen specific areas were reviewed. Mass Transit was found to be in full compliance with applicable federal regulations in each of these 19 program areas.

SCDOT Mass Transit Office supports public transit operations around the State through the administration



of Federal and State transit funds. Currently, SCDOT Mass Transit oversees federal and state transportation funds for approximately 110 Human Service Providers, 14 Rural Public Transit Agencies, and state transportation funds for four Urban Public Transit Systems. In FY 2002-2003, \$34.9 million is committed for transit services throughout the State of which \$6.28 million was from state sources.

SCDOT Mass Transit Office also provides administration functions that include federal and state transit program oversight, planning, transit coordination of services, technical assistance, as well as maintaining a strong partnership with each public transportation agency.

The Lower Savannah Council of Governments (LSCOG) was established as a Regional Transportation Management Association (RTMA), along with six member counties: Aiken, Allendale, Bamberg, Barnwell, Calhoun and Orangeburg, form the Lower Savannah RTMA. The purpose of the RTMA is to ensure a multi-jurisdictional, coordinated provision of transit services in order to optimize the use of resources and to enhance the transit services available to the public. The program has been extremely successful. The LS-RTMA has consolidated the area Substance Abuse Program to reduce drug testing costs to individual agencies, consolidated training programs for drivers and supervisors and served as the review agency for the SCDOT Division of Mass Transit, in consideration of all funding requests for all public transit dollars.

Santee Wateree Regional Transportation Authority (SWRTA) and the Santee Lynches Council of Government (SLCOG) have been selected to conduct a pilot project in the Santee Lynches COG region to be lead agency in coordination of transportation services with local human service agencies. SCDOT encourages these types of coordination partnerships to develop and encourage mobility options.

### Performance Data Collection

During the period of June-December 2002, public transit usage in South Carolina increased 24.4%. This increase is attributed to the startup of the Central Midlands Regional Transit Authority and numerous transit contracts between public transit agencies and human service agencies.

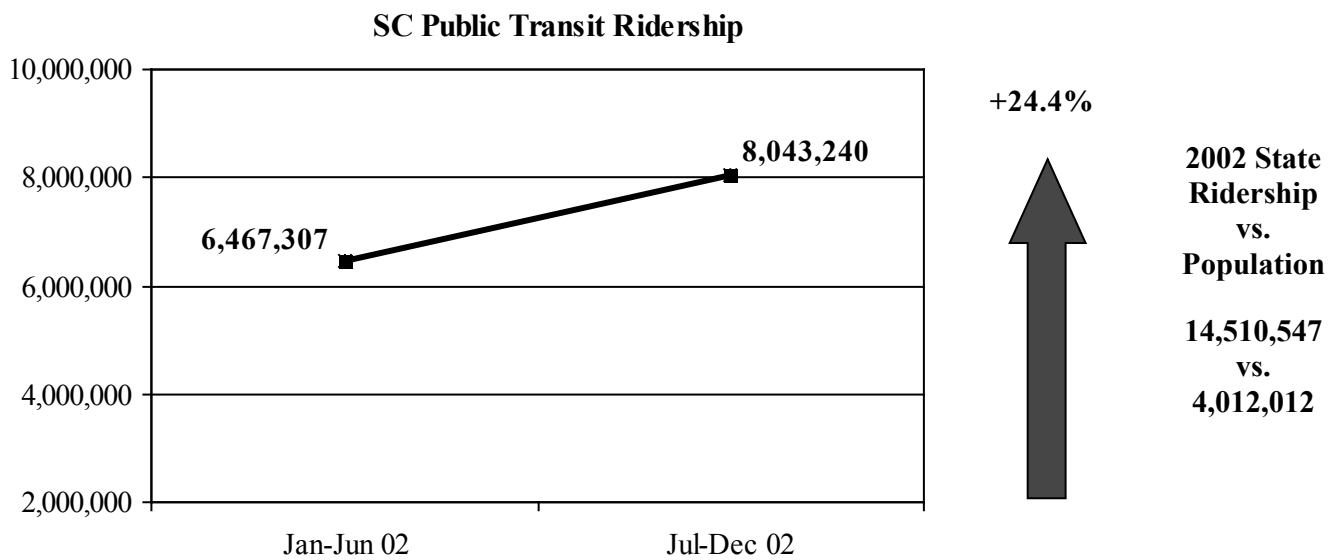


Figure 6-1



## Transit Vehicle and Facilities

Over the past two years, SCDOT worked diligently to develop a vehicle acquisition program to provide transit vehicles to all public transportation providers. The objective of the program is to maximize use of congressional earmarks along with providing a financing option through the State Treasurer's Office in the absence of future earmarks. These initiatives along with placing large transit buses on state contract will assist each transit agency in acquiring needed replacement vehicles. SCDOT received three congressional earmarks totaling \$19.8 million to assist in replacing aging transit vehicles. Vehicle inventories of each public transit agency have been reviewed and the needs are calculated through year 2013.



Figure 6.2 Ms. Elizabeth S. Mabry, Executive Director, SCDOT presenting the keys of a new bus to Mr. Jim Griffith, Executive Director, Edgefield County Senior Citizens.

In January 2003, the SCDOT began furnishing newly acquired transit vehicles to South Carolina public transportation providers. In September 2002, fifty-five (55) medium duty, 17 passenger, wheelchair lift equipped vehicles were ordered at a cost of \$2,761,189. As of March 2003, SCDOT received all 55 vehicles ordered. 160 vehicles will be ordered beginning in September 2003 with an estimated delivery date between February and June 2004.

Also beginning in January 2004, SCDOT will be placing orders for at least 30 large transit buses using the remainder of the FY 2002-2003 Congressional earmarks. By FY 2006 SCDOT is projected to spend over \$18 million on new vehicles. Because of limited capital improvement funds and resources, the SCDOT must have an objective and systematic method of identifying and prioritizing facility replacements, upgrades, renovations, and refurbishments statewide.

To accomplish this goal, facility assessment software has been developed and distributed to each state funded transit agency. The assessments will be used to apply for future Federal Earmarks for capital improvements. As of July 30, 2003, the assessment has identified approximately \$20 million in facility needs. The entire assessment is contained on a compact disk and will be updated every two years or as situations change. The goal of the facility assessment is to involve staff on all levels in the maintenance, and the planning of renovations, refurbishment, and ultimately the replacement of transit related facilities.

## 6.6 Enhancement Projects

SCDOT is carrying the statewide initiative to improve accommodations for bicycles, pedestrians and other non-motorized forms of transportation into the second year. The first statewide Bicycle and Pedestrian Accommodations Conference, entitled "Transportation Choices for the 21<sup>st</sup> Century" was held in 2002. Over 300 people attended the event. In February 2003, the Transportation Commission passed a Resolution that bicycling and walking accommodations should be a routine part of the Department's

provided on every SCDOT project unless not feasible. Subsequently, SCDOT was awarded the S.C. Coalition for Promoting Physical Activity's Public Policy Award for actions in support of physical activity. Planning is underway for a second annual conference in 2003. In addition, the Bicycle/ Pedestrian Coordinator continues to work with communities and individuals throughout the state to provide technical assistance as needed.

Federal regulations provide that a certain portion of federal highway dollars be used exclusively for beautification and enhancement purposes. The agency is not allowed to use these funds for highway construction or even maintenance of existing highways. Therefore, SCDOT continues to pursue beautification projects, which encourage our visitors and citizens to develop a favorable and lasting impression of South Carolina. Following is a list of accomplishments during the past fiscal year from the Beautification Vision:

- I-95 SC/GA Gateway
- I-95 SC/NC Gateway
- I-26 SC/NC Gateway
- I-77 SC/NC Gateway
- I-26 Orangeburg County rest areas landscaping
- I-95 exit 33 interchange landscaping
- Liberty Gardens, I-95 in the Santee area, commemorating the September 11 tragedy

Each year, the SCDOT Commission provides enhancement funds for the Adopt-An-Interchange program. SCDOT partners with local governments to provide a higher level of beautification at key interchanges along interstates and controlled access highways. A unique feature of this matching-funds program is that applications for funding are accepted throughout the year until the financial resources are exhausted. The program provides greater opportunity for local governments to collaborate with the agency to pursue a broad range of non-traditional transportation related activities such as landscaping, scenic programs, and historic preservation.

SCDOT's employees take an active role in enhancing the state's highways. In 1999, SCDOT launched Colorful Spaces to develop an awareness and commitment for roadside enhancements by SCDOT employees. SCDOT district employees plant the landscaped plots along highway rights of way. These activities are primarily to be accomplished on a volunteer basis on off hours.

	<b>Number of Employees that Participated</b>	<b>Existing Colorful Spaces Sites Enhanced</b>	<b>New Colorful Spaces Sites Created</b>
<b>2001</b>	639	46	32
<b>2002</b>	657	34	43
<b>2003</b>	519	25	35

Figure 6-3

Maintenance employees oversee the Wildflower Program. To transform roadsides into vibrant wildflower beds, the employees select and order the seeds, develop planting schedules, prepare the plots, plant the





seeds and monitor the plots. The goal of the program is to establish an efficient and balanced program that provides color year round. SCDOT currently maintains 1,100 acres of cultivated wildflower beds.

Partnerships with local governments, businesses and communities help to maximize the positive results of our projects. By working together, we enhance our quality of life and contribute to the state's tourism industry and economic development. In 2003, SCDOT Maintenance employees planted over 1100 Redbud Trees along South Carolina's interstates in partnership with the Garden Club of South Carolina. The partnership also launched the Carolina Fence™ Garden Project, which involved the planting of the gardens at six Welcome Centers. The 200-300 square foot areas feature natural and cultural symbols of South Carolina including Yellow Jessamine, Carolina Wren Houses and Blue Granite Stones. The S.C. Department of Natural Resources and the S.C. Wildlife Federation joined SCDOT and The Garden Club of South Carolina in this enhancement endeavor.

Litter abatement is another important facet of the Department's enhancement efforts. For 15 years the Adopt-A-Highway Program has provided an effective channel for cultivating public commitment to keeping our highways clean. County maintenance units and coordinators oversee the Adopt-A-Highway Program on a local level, and all 46 counties in the state participate in the program. The Adopt-A-Highway volunteers, who cleanup roadside litter at least three times a year, are one of our state's most valuable resources. Adopt-A-Highway volunteers continue to produce impressive results in their fight against litter.

SCDOT Adopt-A-Highway Statistics				
	Pounds	Miles	Groups	Volunteers
<b>2000</b>	1,955,077	7,169	2,357	36,540
<b>2001</b>	1,999,199	7,683	2,249	34,869
<b>2002</b>	1,970,364	7,679	2,032	33,284
<b>Totals</b>	<b>5,924,640</b>	<b>22,531</b>	<b>6,638</b>	<b>104,693</b>

Figure 6-4

Educating the public about Adopt-A-Highway and the litter problem in South Carolina is also a top priority of the program. County coordinators and SCDOT employees dedicate countless hours informing the public of the importance of litter prevention and encouraging groups to adopt sections of highways. To assist in these efforts, promotional items have been developed for the Adopt-A-Highway program including informational brochures, stickers, safety handouts, car-litter bags, and pencils. Additionally, a toll free line, web page and e-mail address assist with the dissemination of information to the public.

The agency also demonstrates its commitment to a cleaner South Carolina by holding two annual weeklong cleanups conducted by the maintenance employees throughout the state. These special events provide another opportunity for the state's roadways to be cleaned, call attention to SCDOT litter abatement efforts, and increase litter awareness among South Carolina's citizens. Figure 6-4 displays recent results from annual litter pickups.



Carolina Spring Clean-up Results			
	Employees	Miles	Pounds
<b>2001</b>	1,133	2,866	686,671
<b>2002</b>	918	2,745	603,344
<b>2003</b>	767	2,857	346,099
<b>Totals</b>	<b>4,421</b>	<b>11,094</b>	<b>2,075,113</b>

Annual Fall Clean-up Results			
	Employees	Miles	Pounds
<b>2000</b>	1,467	2,009	253,917
<b>2001</b>	1,580	2,488	507,977
<b>2002</b>	1,622	2,671	415,922
<b>Totals</b>	<b>4,669</b>	<b>7,168</b>	<b>1,177,816</b>

Figure 6-5

In addition, SCDOT is currently working with the Palmetto Pride to develop Palmetto Prideways into a successful litter pickup sponsorship program for the interstates. The SCDOT Maintenance office also oversees SCDOT'S partnership with the Department of Corrections, which utilizes inmate labor to remove litter from roadsides.



## CATEGORY 7 – BUSINESS RESULTS

### 7.1 Performance Levels and Trends

The performance levels and trends that serve as a gauge for the operations of SCDOT include 12 performance measures (5 for resources, 7 for results), as well as the performance measures in SCDOT's Strategic Plan. In the most recent Comparative Performance of State Highway Systems published by the Center for Interdisciplinary Transportation Studies at the University of North Carolina at Charlotte, **South Carolina is rated third in overall performance and first in its peer group.**

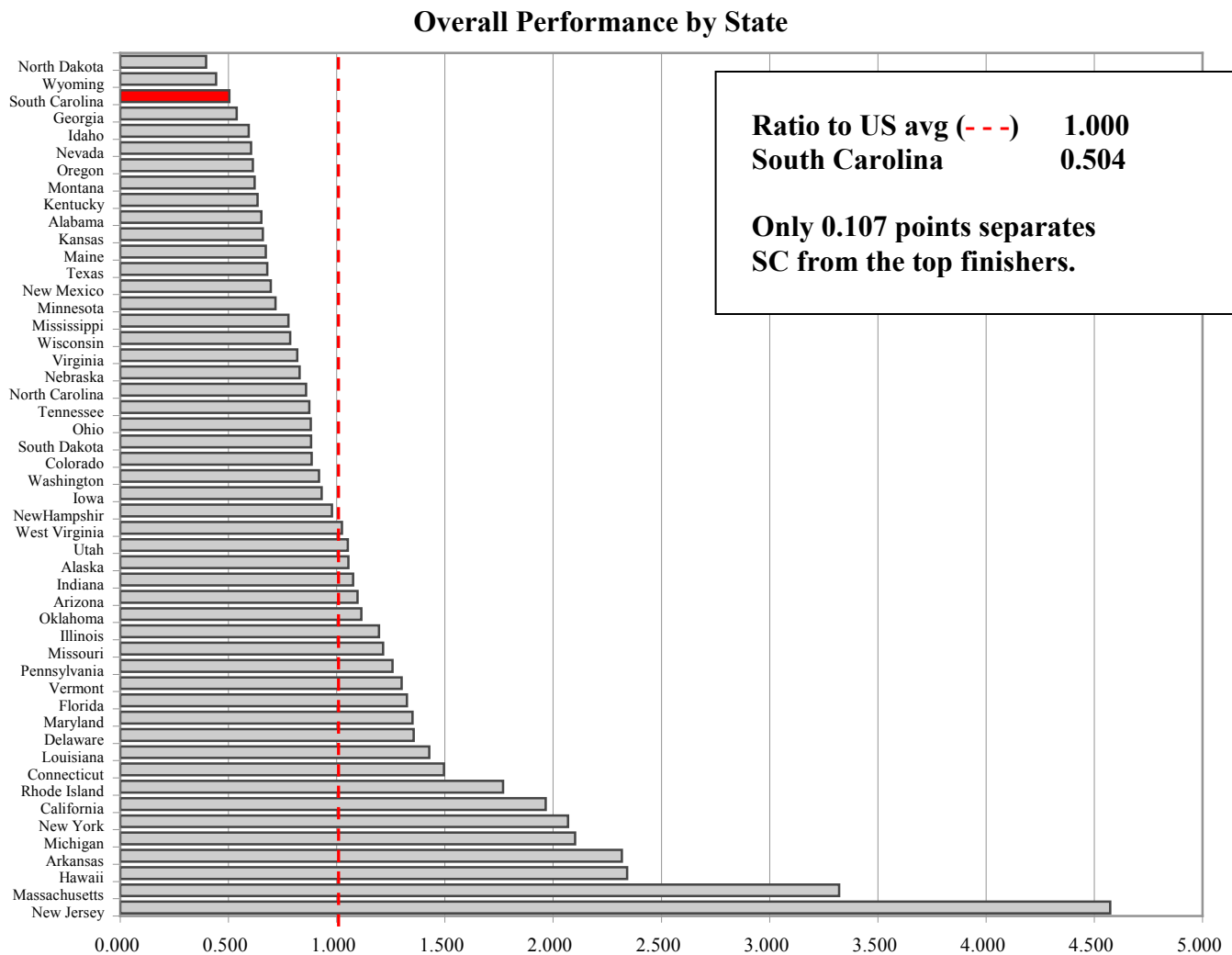


Figure 7-1

SCDOT continues to be rated as one of the most efficiently operated agencies in the nation, according to the Comparative Performance of State Highway Systems, Ninth Annual Report, published by the Center for Interdisciplinary Transportation Studies, University of North Carolina at Charlotte. Figure 7-2 depicts that South Carolina spends less than other states, with the exception of Arkansas, on administration of its highway programs. Figure 7-3 indicates that SCDOT has the fewest employees per 100 miles than any



other state in the country.

**Administrative Cost per State Controlled Mile, 2001**

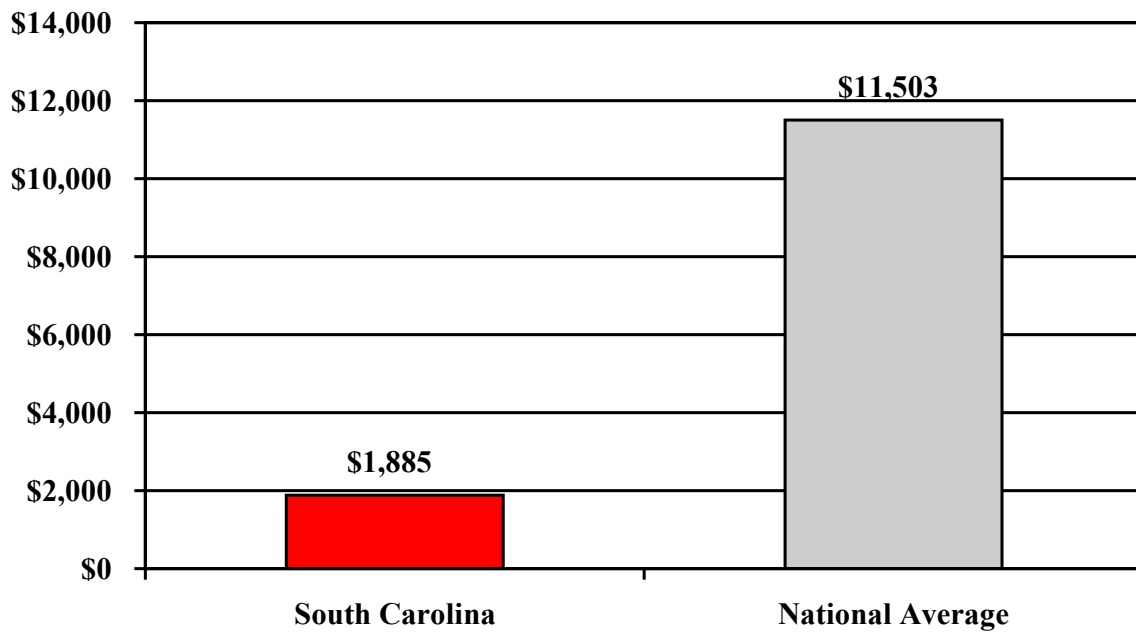


Figure 7-2

**Number of Employees Per 100 Miles**

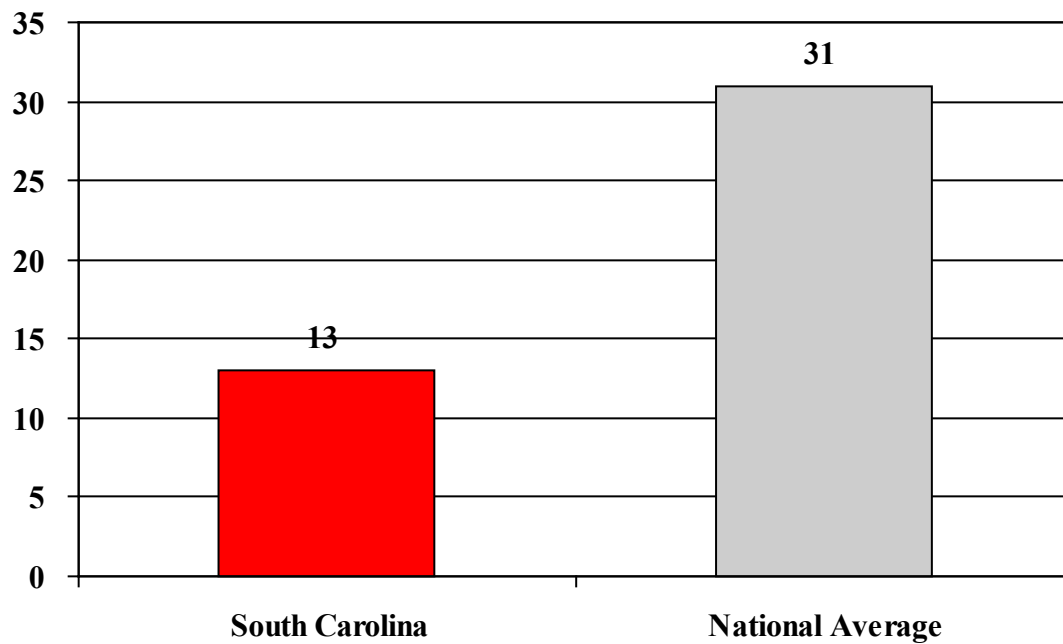


Figure 7-3







We would appreciate your assistance in helping to improve the services offered by the South Carolina Department of Transportation through our incident response program. Please complete the information below and return this postage-paid card, or email your comments to IR@scdot.org

Name \_\_\_\_\_

Address \_\_\_\_\_

State \_\_\_\_\_

What type of assistance did you receive? \_\_\_\_\_

Where did you receive this assistance (route)? \_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_

Was the SCDOT driver courteous? ☐ Yes ☐ No

Driver's name \_\_\_\_\_

Did the driver explain what services are provided by SCDOT through our incident response program? ☐ Yes ☐ No

Your comments or suggestions on how we can improve this program: \_\_\_\_\_

Goal 7 of the Department's Strategic Plan is to **provide the highest level of customer service**. We have developed key measures of customer satisfaction in several areas. The measures include the completion of work orders, assistance to motorists by SCDOT Incident Response Teams, Procurement and Contractor/Partner assistance.

**SCDOT Incident Response Teams (the "Blue Trucks"):** Teams are located in Columbia, Charleston, Beaufort, Upstate Interstate 85, Rock Hill, Myrtle Beach, and Florence. These teams assisted 68,432 motorists in FY 2003. All motorists receiving assistance are given an Incident Response Survey and asked to complete it. The survey form (Figure 7-4) is a Business Reply Mailing addressed to SCDOT.

Figure 7-4

**Maintenance:** SCDOT Maintenance Offices have an objective of completing work on 95% of all requests and complaints pertaining to roads and bridges within 60 days. All safety related complaints are acted upon immediately. A frequent complaint from the public is about potholes. Most Districts have an objective of repairing potholes within 24 hours. During FY 2003, 39.4% of potholes were repaired on the same day while another 17.7% were repaired within 24 hours. An example of the objective in action: District One repaired 2116 potholes within 24 hours of 2276 reported.

**Materials Testing:** The SCDOT Research and Materials Laboratory established a standard of providing test results on 75% of samples other than concrete cylinders within 14 days. The laboratory completed testing on 90% of the samples in 14 days in FY 2003 as compared to 87% in FY 2002.

**Procurement.** For the past three fiscal years, the Procurement Office surveyed its customers that include SCDOT employees and vendors. The survey questions included issues related to the buyer's knowledge, professionalism, accessibility, responsiveness and adherence to the project solicitation schedule.

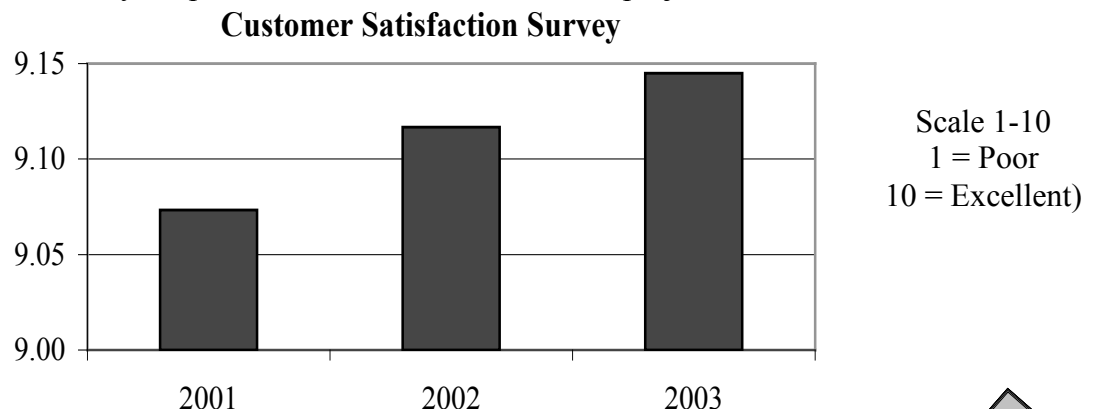


Figure 7-5  
**Reduction of the Condemnation Rate**

SCDOT made significant strides in improving public satisfaction in the appraisal and right-of-way acquisition process. The condemnation rate for FY 2002-2003 is 11% as compared with 12% from the previous year. SCDOT continually strives to reduce our condemnation rate by reaching amicable settlements for rights-of-way acquisition. SCDOT has established a goal of reducing this rate by 1% per year, until it reaches a level where it is no longer cost effective to try to reduce.

## 7.2 Performance levels and Trends of Mission Accomplishment

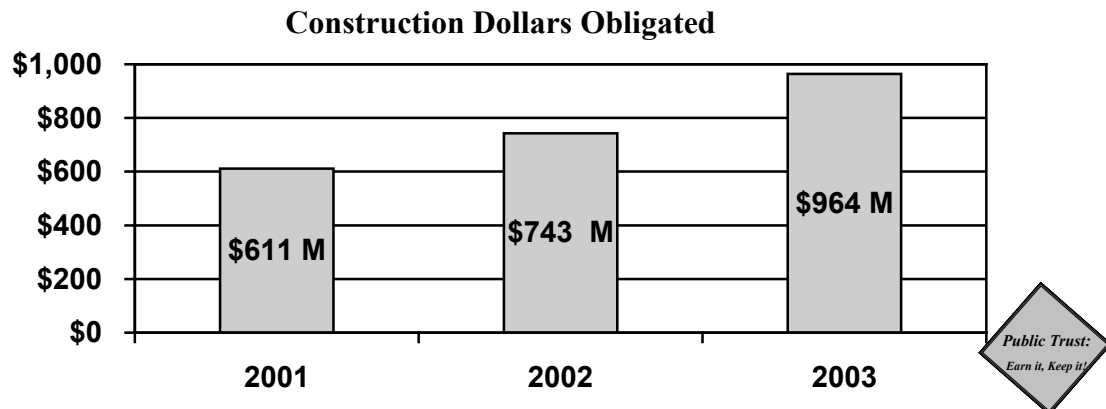
### Projects Accepted for State Maintenance

Type of Project	2000-2001			2001-2002			2002-2003		
	Cost \$M	Length	# Proj.	Cost \$M	Length	# Proj.	Cost \$M	Length	# Proj.
Federal Bridge	\$39.7	7.6	24	\$20.3	7.0	23	\$55.5	17.8	22
Secondary	\$49.4	1,408.7	74	\$18.6	419.9	36	\$15.4	219.5	34
Special Match Resurf.							\$12.6	144.4	21
Interstate	\$149.7	96.2	17	\$21.7	25.9	6	\$102.6	34.8	9
Primary	\$123.0	375.4	52	\$236.3	604.5	88	\$156.3	200.6	47
Other	\$16.5	5,566.0	46	\$12.8	5,961.0	30	\$33.8	9,482.8	46
<b>Totals</b>	<b>\$378.3</b>	<b>7,453.9</b>	<b>213</b>	<b>\$309.7</b>	<b>7,018.2</b>	<b>183</b>	<b>\$376.3</b>	<b>10,099.9</b>	<b>179</b>

Figure 7-6

### Construction Underway

South Carolina is beginning to reap the benefits of the “27 in 7 Peak Performance” highway and bridge construction program. This program, initiated in 1999, uses a combination of innovative financing and contracting programs to complete 27 years of work in 7 years. The program uses CRMs from private contracting firms to assist the agency in completing approximately 200 road and bridge projects. This enables SCDOT to complete the work without hiring additional staff. Figure 7-7 indicates the growth in dollars committed to construction over the past three years. This massive increase has been accomplished with **no new employees!** This was possible due to enhanced use of technology and utilization of the private sector. Also, SCDOT used innovative techniques to leverage federal funds and get more work out of existing state dollars. **Figure 7-7** below depicts the construction dollars obligated by fiscal year.



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## Construction Projects Completed (2002-2003)

During the fiscal year 2002-2003, 179 road and bridge projects totaling \$376.27 million were completed. This included 22 federal/state bridge replacement/rehabilitation projects for 17.01 miles totaling \$55.47 million; 34 state secondary road projects for 219.46 miles totaling \$15.43 million; 21 special-match program resurfacing projects for 144.39 miles totaling \$12.61 million; 9 interstate projects for 34.81 miles totaling \$102.6 million; 47 primary/urban projects for 200.61 miles totaling \$156.35 million, and 46 other (pavement marking, landscaping, resigning, etc.) for 9,482.8 miles totaling \$33.8 million.

## Notable Projects Completed in FY 2002-2003

- A new location design-build road and bridge project on SC 31 (Carolina Bays Parkway Phase 1) from SC 9 to US 501 for a total of 20 miles was completed in December 2002. This was a SIB funded project. It was finished ahead of schedule.
- A road and bridge project on SC 80 (J. Verne Smith Parkway) for a total of 5.2 miles was completed in July 2002. This was a SIB funded project.
- An Interstate widening project on I-85 in Anderson County from South of US 76 to North of US 29 for a total 15.8 miles was completed in November 2002. This was an Interstate Widening project, which was accelerated by SCDOT's Innovative Bonding Program.
- A road and bridge project on I-26 at US 176 in Richland County for 6 miles was completed in December 2002. This was an Interstate Interchange project, which was accelerated by SCDOT's Innovative Bonding Program.
- A road and bridge project on US 17 (Fantasy Harbor Interchange) for a total of 2.4 miles was completed in January 2003. This was a SIB funded project.

## Major Projects Under Construction

**Carolina Bays Parkway** – Construction was completed on Phase I of the Carolina Bays Parkway and opened to traffic on December 17, 2002. The six lane interstate standard road stretches for 20 miles between SC 9 and US 501. Phase II of the Parkway is currently under construction between US 501 and SC 544. This segment is about 5 miles and construction is anticipated to be complete by Fall 2004.

**Cooper River Bridge** – In the two years since ground was broken for the new Cooper River Bridge, our contractor, Palmetto Bridge Constructors (PBC), is more than fifty percent complete with the design-build contract. Work remains on schedule to finish the project as early as one year in advance of the July 15, 2006 completion date set in the contract. This means that traffic in both the northbound and the southbound directions will be using the new bridge by mid-2005. SCDOT has continued the environmental analysis and preliminary design for the project to demolish and remove the existing Grace and Pearman Bridges so that the funding package can be completed.

## Construction Resource Managers (CRM)





Because of our accelerated project program, SCDOT had to be innovative to meet increased construction demands. FY 99-00 saw the addition of an essential part of the “27 in 7 Peak Performance” construction program with the addition of the Construction and Resource Managers (CRM). Two CRM firms are under contract to SCDOT to assist managing 94 of the 200 construction projects that will be built in seven years. SCDOT accelerated bond construction program increased the agency’s workload by a factor of 2.5 for several years. Without the assistance of the Construction Resource Managers, SCDOT would have to employ approximately 500 additional employees to meet the demand of the accelerated construction program and then the dismissal of the employees once the program was completed. The two Construction Resource Managers act as an extension of SCDOT staff and report to Department Program Managers and District Engineering Administrators. Some of the accomplishments during the past year include:

- Actively working in the areas of project management, engineering, design, right-of-way acquisition, construction, inspection, and testing.
- As of June 2003, over 900 lane-miles of construction, managed by the Construction Resource Managers were underway throughout the state. 19 projects have been completed.
- Continued use of the previously developed Financial Management System for the tracking and financial analysis of all SCDOT projects/progress.
- Implementation of a Program Management System for Department wide use.
- To date, the CRM firms have completed work on 3,200 right of way parcels that have been purchased for construction of highways, while maintaining a condemnation rate of less than 10%.
- In partnership with SCDOT and FHWA, staff engineers achieved savings of over \$30 million (thru December 2002) by making cost saving recommendations related to design and construction on highway improvement projects.
- There are currently 71 projects in progress, including 1 in preliminary design, 9 projects in the right-of-way plan development stage, 30 projects in final plan development, and 31 projects under construction. Nineteen (19) have been completed and open to traffic.

### Status of CRM-Managed Projects

Since the notice-to-proceed on July 22, 1999, the CRMs have begun work on 90 projects. The current status of these projects as of June, 2003 are listed in the following table:

Phase of Project	CRM East	CRM West	Total
Preliminary Design (0-25%)	0	1	1
ROW Plans (26%-75%)	6	3	9
Final Plans (76%-95%)	16	14	30
Construction underway	10	21	31
Construction Complete	10	9	19
<b>Total</b>	<b>42</b>	<b>48</b>	<b>90</b>

Figure 7-8

### Road and Highway Maintenance



SCDOT has responsibility for maintaining the **fourth largest state highway system in the nation**, and does so as one of the lowest funded states in the nation. SCDOT has only \$5,032 per mile available for key maintenance, which is well below the national average of \$22,166 per mile. The maintenance budget for FY 2001-2002 was \$196,800,000, which decreased for FY 2002-2003 to \$190,000,000. (Please note that South Carolina has the fourth largest number of miles in the nation and the least amount of total funding per mile.) Figure 7-21 shows the ranking of states by maintenance disbursements. Our partner, Bob Lee of the South Carolina Division of FHWA, has initiated and approved a test program that has allowed federal money to be spent on local roads, and as a result, SCDOT maintenance for the next fiscal year will increase by approximately \$ 56 million.

## Maintenance Activities

Maintenance employees perform all facets of maintenance activities. According to the recent UNC-Charlotte study on comparative highway systems, South Carolina averages 13 employees per 100 state controlled miles as compared to a national average of 31 employees per state controlled mile. The major activities conducted by SCDOT Maintenance forces include Chip Sealing, Inspection and Improvement of Drainage Systems, Traffic Signals inspections and upgrades and completing work requests. Additionally there is an extensive investment in equipment.

- Chip Sealing – SCDOT has increased chip sealing our roads. Chip sealing is applying a coating of asphalt emulsion sprayed on the road, followed by a layer of small stone. Chip seal prolongs the life of secondary roads by 5 years. During FY 2003 1,630 miles of road were treated.
- Inspection and Improvement of Drainage Systems – SCDOT has also increased the inspection and improvement of drainage systems along state maintained routes. These improvements enhance water runoff, thus making the roads safer.
- Upgrading of Traffic Signals – 305 traffic signals were replaced this year.
- Equipment Utilization – Improving equipment utilization has been a priority in the Maintenance Business Plan. During FY 2003, we have reduced the equipment fleet while increasing the usage rate of highway maintenance equipment.
- An objective in the Strategic Plan is to complete all work requests for non-emergency matters in less than 60 days.

### Maintenance Equipment Utilization and Units

Increased usage by 23%

Reduced equipment by 534 units

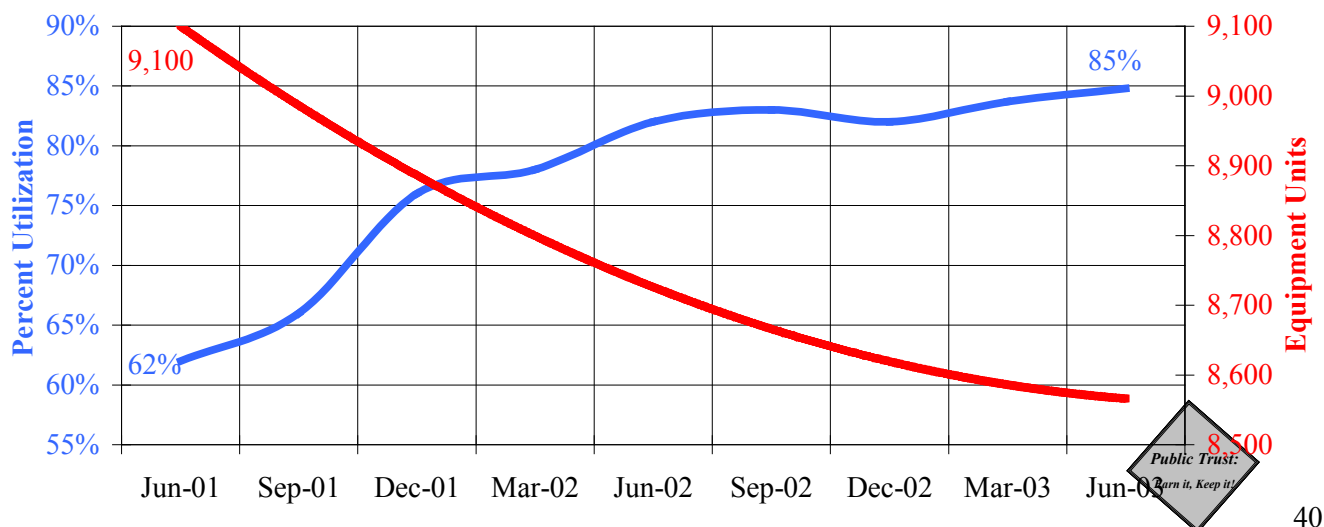


Figure 7-9

## Pavement Condition

The Office of Pavement Management collects pavement condition, GPS, and digital image data on all three major road systems: Interstates, US and SC routes, and Secondary routes. Pavement Management has two very specific responsibilities: 1) to collect data only on travel lanes (excluding bridges), and 2) to provide a network view of the roads and highways in South Carolina.

An overall measure of pavement quality is calculated from the pavement condition data collected by Pavement Management. This measure is called the Pavement Quality Index, or PQI. The index ranges from zero to five, with five being a perfect road. The five condition classifications and their PQI ranges are: 1) Very Good (PQI = 4.1 to 5.0), 2) Good (PQI = 3.4 to 4.0), 3) Fair (PQI = 2.7 to 3.3), 4) Poor (PQI = 2.0 to 2.6), and 5) Very Poor (PQI = 0.0 to 1.9).

Trends for the Interstate System show the average condition of these pavements declining over the most recent three-year period. Specifically, the overall PQI for the Interstate System fell from 3.62 in 2001 to 3.47 in 2002, and further still to 3.35 in 2003. Viewed another way, the percentage of the Interstate System classified as “Good” or “Very Good” dropped from over 79% in 2001 and 2002 to 57% in 2003. Similarly, the percentage of the Interstates with “Fair” or “Poor” PQIs held at about 21% in 2001 and 2002, then rose to 43% in 2003. The system-wide PQIs for the US and SC highways are presently in the “Fair” range of condition classifications. The most recent overall PQI for the US routes stands at 3.14, and that for the SC routes at 3.10.

The Secondary System – which has been collected recently for the first time – has an overall PQI of 3.21. A Secondary System measure must be interpreted differently from the interpretation of the same measure when applied to other systems. For example, Secondary roads are much rougher than the roads that comprise the Interstate, US, and SC systems.

In conclusion, network data collected by Pavement Management shows that the condition of the Primary Systems – the Interstates and the US and SC routes – has deteriorated steadily for the last three years. Moreover, the general quality of these systems has descended to a relatively mediocre level. The Secondary System, although having only one collection of system-wide data completed, shows a high degree of roughness across the system.

## Bridge Maintenance

SCDOT uses a Bridge Management System (BMS). The development, implementation, and data collection of the BMS began in the early 1990’s, with full-scale operations starting in 1998. The system provides detailed analyses of South Carolina’s bridge needs and priority recommendations. Although replacement projects have been the primary focus, improvements such as widenings and raisings, and maintenance repairs and rehabilitations are now being considered.

Statewide Bridge Inspection continues to be a critical component of the highway safety and the eligibility for Federal Aid Bridge Program Funds. SCDOT inspects approximately 6,500 bridges per year and

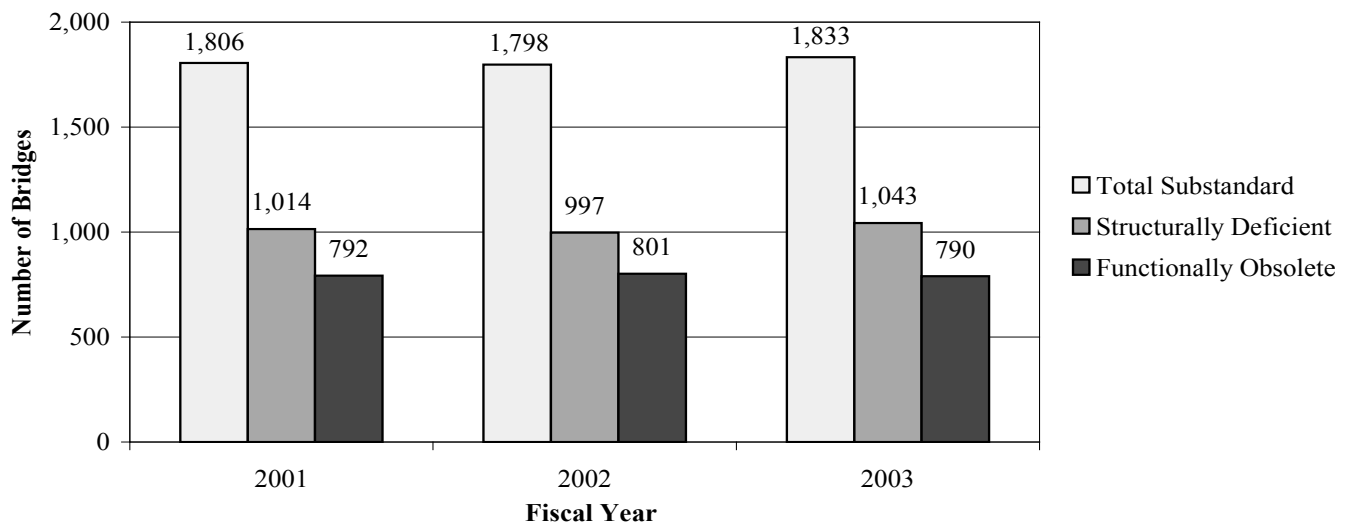


contracts for underwater bridge inspections of approximately 60 bridges per year. Data collected from inspection and maintenance activities are an integral part of the BMS.

The bar chart entitled “Substandard Bridges” depicts a slight decrease in the number of “substandard” bridges from the previous year. However, this is only temporary due to the overall trend. Some of the primary factors that affect this trend are the overall construction history and age of the bridge infrastructure, historical lack of emphasis on bridge maintenance, and inadequate funding levels. Even though SCDOT uses a BMS it is difficult to overcome the lack of proper funding. This overall trend of an increase in substandard bridges is expected to continue because of lack of funding and the growing transportation needs of the state. Figure 7-10 depicts the number of substandard bridges in South Carolina.

### Substandard Bridges

Figure 7-10



### Risk Management

Accomplishments of the Risk Management Section include:

- Insurance premiums have been reduced substantially from those paid in 1998. As of June 2003 the cumulative savings totaled over \$8,000,000.00.
- The Risk Management Section presented a Risk Management Awareness training program to all 47 maintenance units across the state reaching over 2700 employees.
- Risk Management identified the top areas of loss due to claims and lawsuits and made recommendations to reduce these losses.
- A risk management information system is being developed with the assistance of the ITS Section to create a central database for claims against the Department, claims against the public, employee injuries, and vehicle accidents.
- A recommendation was made to upper management on implementing a Return-To-Work program for injured employees to reduce days away from work due to work-related injuries and also reduce our workers compensation insurance premium.



## Highway Safety

South Carolina has the third highest death rate in the nation. The death rate is 53% higher than the national average, and 35% and 53% higher than our neighboring states of North Carolina and Georgia, respectively. As previously discussed, SCDOT has been successful in its efforts to reduce fatalities on the Interstate.

**The major challenge facing SCDOT is reducing highway fatalities on South Carolina's secondary road system.** Two out of three highway deaths occur on our two-lane roads. Unfortunately, funding for improvements are limited. Although South Carolina received an increase in funding from the Transportation Equity Act for the 21<sup>st</sup> Century, most Federal highway funds are not eligible for improving 78 percent of the secondary road mileage in South Carolina. The increase in Federal funds and match requirement has also significantly reduced available State funding for improvements on Secondary routes. SCDOT is seeking additional funding from the legislature. One objective of the funding package is to create a State funded safety program to reduce the fatality rate on these roads.

The Department initiated a 5-year program for low cost safety improvements on "off system" roads. The Crash Reduction by Improving Safety on the Secondaries (CRISOS) is an experimental project. CRISOS projects add paved shoulders to roads to reduce crashes. The Department purchased handheld Global Positioning Systems for the Highway Patrol and local law enforcement to improve accident report on secondary roads. The number of fatalities has slightly decreased since 1999. However, traffic fatalities are still near an all-time high and continue to be a major concern of SCDOT.

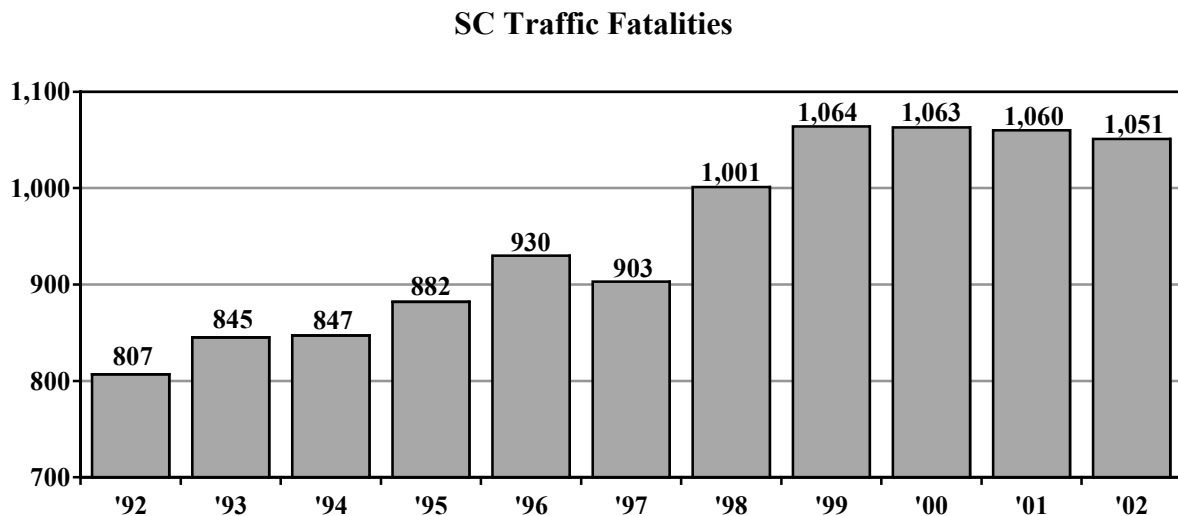


Figure 7-11

SCDOT has been successful in its efforts to reduce fatalities on the Interstate. Our initiatives included installing cable barrier in narrow medians, reducing speed limits in urban areas, and implementing truck lane restrictions on Interstate segments having six or more lanes. Another initiative is the Interchange Ramp Upgrades for Safer Highways (RUSH). 20 projects have been substantially completed. These efforts helped reduce fatalities on the Interstate system 36 percent in 2001. Without these initiatives, South Carolina's total fatalities would have increased about six percent.



### SC Interstate Fatalities – 148 Lives Saved

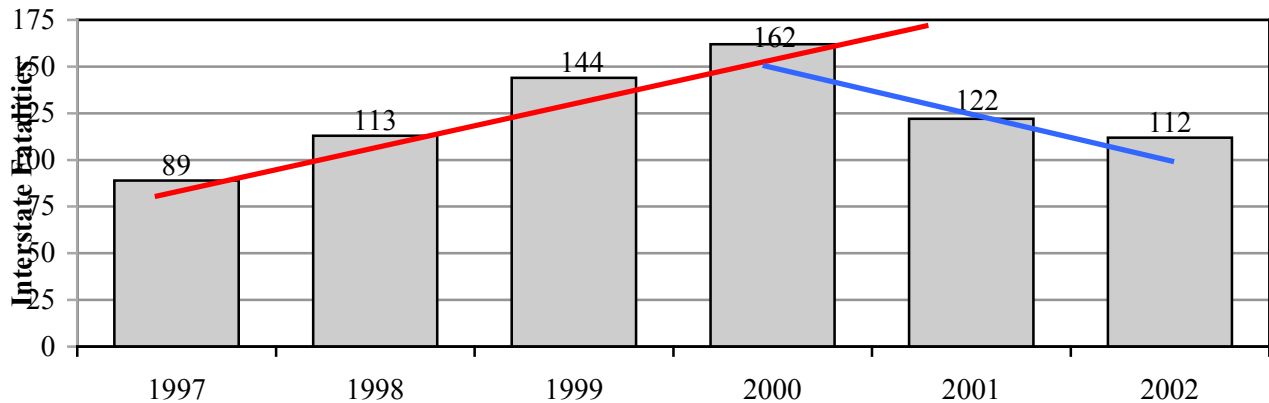


Figure 7-12

### Interstate Median Barriers

Figure 7-13 indicates the status of Phase 1 of the installation of median barriers to prevent crossover median crashes. This is the highest priority of SCDOT in FY 2002-2003.

Interstate	I-20	I-26	I-77	I-85	I-85 Bus.	I-95	I-385	I-526	Totals
Miles Cable Installed	68	130	11	48	6	20	51	11	345
YTD Total Saves	257	588	42	195	20	54	80	36	1,272
Saves by Month									
February	37	93	5	50	-	2	15	3	205
March	41	74	4	36	7	14	12	9	197
April	39	84	7	16	2	11	16	5	180
May	41	96	6	31	7	7	7	9	204
June	46	113	8	37	2	11	17	3	237
July	53	128	12	25	2	9	13	7	249

Figure 7-13 (above)



SCDOT has completed the installation of approximately 345 miles of Interstate cable median barriers. The cable median barrier program has been extended to non-Interstate facilities, with 26 miles currently under contract. Cable median barriers have proven to be 99% effective.

To the left (**Figure 7-14**) is a picture of one “save” resulting from the installation of the Interstate cable median barriers.



### 7.3 Employee, Satisfaction, Involvement and Development

**Employees Trained:** SCDOT has a diverse and no cost training and development operation. Every employee is required to receive 12 hours training per year from an extensive curriculum of technical, interpersonal skills and informational classes. In FY 2003, 4,925 employees received training.

**Grievances:** In the area of grievances, there were 26 filed in 2000-2001 and a total of 6 appeals were made at the state level. In 2001-2002, 23 were filed and only 5 were appealed at the state level. In 2002-2003, 23 filed and 4 were appealed.

**Awards and Recognition:** The Department has an internal Awards and Recognition Program. Eight employees each year are nominated by their peers as Employee of the Year. One employee represents the Headquarters and one for each of the Districts. Two other recognition programs are titled “On the DOT” and “On the DOT Extra.” Supervisors or peers can give the On the DOT Award to an employee for work beyond the call of duty. Supervisors have the flexibility to present an On the DOT Extra Award that involves a monetary award up to \$250. During FY 2003, 2,796 employees received an On the DOT Award and 330 received an On the DOT Extra Award.

**Separations:** In FY 2003, 440 employees were separated from the Department, both voluntarily and involuntarily. In FY 2002 there were 476, and 585 in FY 2001.

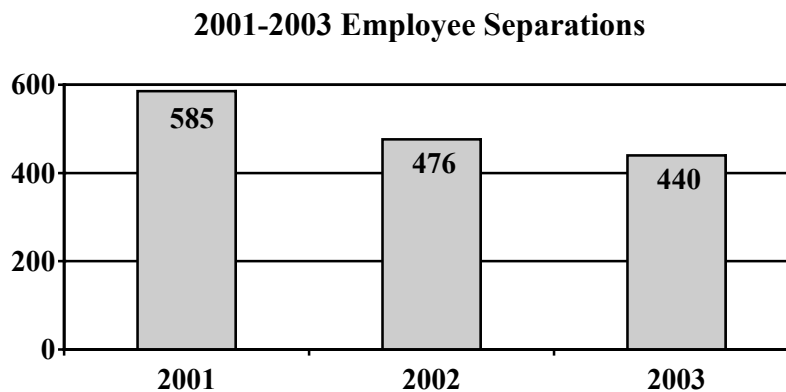


Figure 7-15

#### Occupational Safety

In 2002, 520 employees reported injuries, of which 417 were OSHA recordable cases. In 2000, the agency reported 652 injuries with 489 OSHA recordable cases and 566 injuries with 457 OSHA recordable cases in 2001. This represents a 20.2% decrease in injuries and a 14.7% decrease in recordable cases in the last 3 years.

During calendar year 2002, there were no SCDOT employee fatalities. Two employee fatalities were



experienced in 1999; one in 2000; and one in 2001. The number of injury cases involving lost workdays has also decreased significantly over the last three years, dropping from 268 in 2000 to 197 in 2002. This represents a 26.5% decrease since 2000 and is the lowest number of lost time injuries in thirteen years of traceable data.

OSHA incident rates reflect the average number of recordable injury cases that occur during the year. The rate has decreased consistently for the last three years, from 9.61 in 2000 to 8.89 in 2001, to 8.22 in 2002. This represents a 14.5% decrease since 2000. Additionally, the overall rate remains at less than 10, which is a positive result.

#### OSHA Recordable Injuries (per 200,000 hours worked)

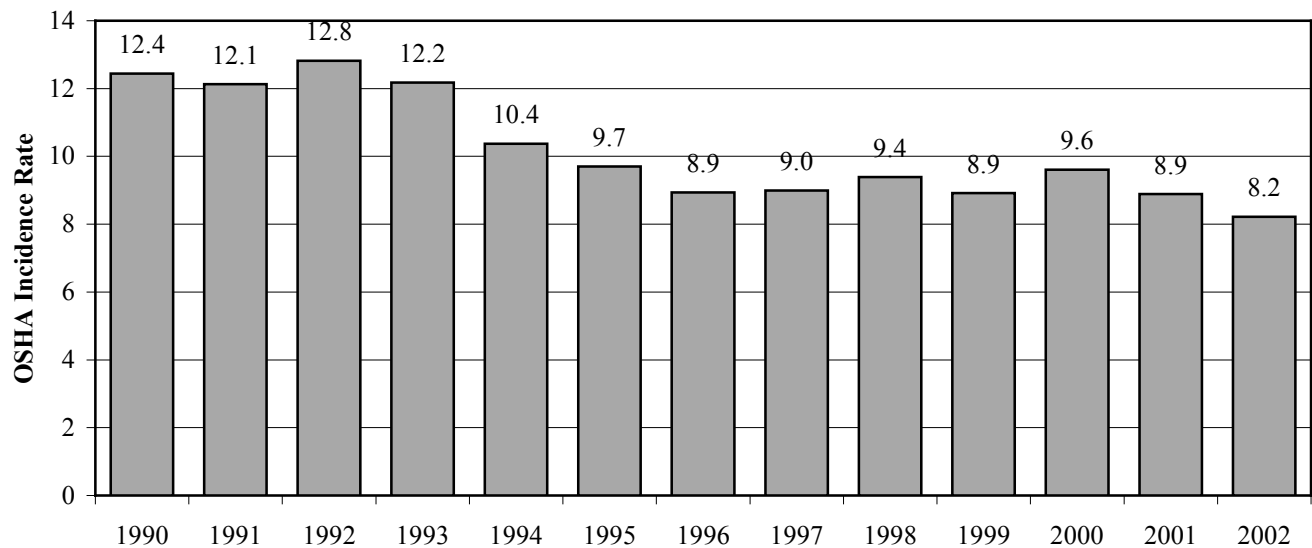


Figure 7-16

#### 7.4 Supplier/Contractor/Partner Performance

One area that is measured is the Minority Business Enterprise participation. The State requires each agency to set a goal of at least 10% of controllable dollars to be spent with minority suppliers/contractors/partners.

We have created a database for vendor complaints and will be measuring the number of complaints against the number of contracts administered/managed for each fiscal year. We have captured data for this past fiscal year and will be able to show the results once all three years of baseline data are captured. This past year, we administered/managed 683 contracts with only 21 vendor complaints, indicating 97% of contracts were completed without significant complaints. This is a reflection of supplier/contractor/partner performance as well as key business processes being implemented accurately.

Personnel from the Research and Materials Laboratory assist CRM engineers and SCDOT's Quality Management Team in auditing construction projects. These audits include in-depth analysis of staff qualifications, construction practices, construction materials quality, and record keeping. During FY 2002, Research and Materials Laboratory engineers, along with engineers from the Director of Construction's office and FHWA, actively participated in two quality control audits of the design/build contractor's testing





records for the Carolina Bays Parkway.

Figure 7-17 is a chart that reflects the total number of contracts and dollar amounts entered into each month. (This does not reflect the number of jobs under construction in any given month.)

**Monthly Lettings**

Month	# Projects	Total \$ per Month
July-02	29	\$ 95,361,904
August-02	34	\$ 38,036,033
September-02	11	\$ 32,740,867
October-02	18	\$ 19,726,088
November-02	20	\$ 20,330,252
December-02	15	\$ 23,701,867
January-03	12	\$ 8,019,323
February-03	32	\$ 55,684,189
March-03	25	\$ 58,138,668
April-03	23	\$ 27,047,004
May-03	41	\$ 22,053,798
June-03	31	\$ 56,697,722
<b>Totals</b>	<b>291</b>	<b>\$ 457,537,715</b>

Figure 7-17

#### 7.4 Regulatory/Legal Compliance and Citizenship

One way SCDOT complies with regulatory laws is in our analysis of the top 50 claims paid by SCDOT; these are prioritized into categories of claim type and countermeasures are provided to reduce the top three categories.

**Top 50 Claims and Recommendation of Countermeasures**

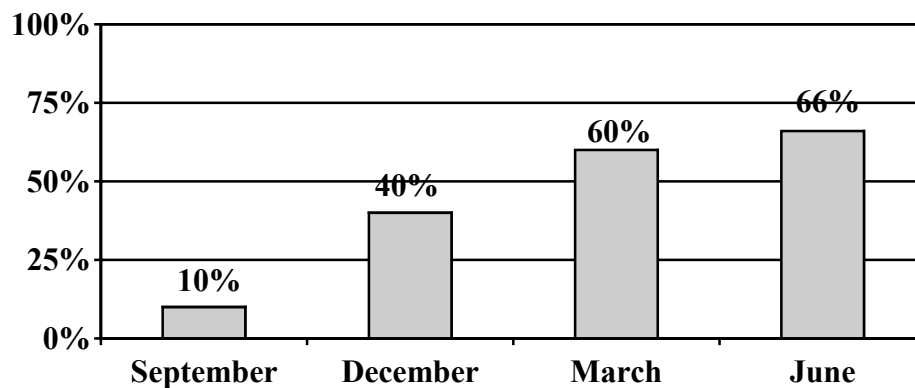


Figure 7-18

SCDOT has worked to increase the number of certified DBEs in highways and mass transit by 10%. Out



of a total of \$131,334 expended on mass transit technical assistance projects last fiscal year, approximately \$73,641 was spent with DBE firms for a participation rate of 56%. For the second year in a row, SCDOT exceeded its strategic goal of increasing the number of certified DBEs in highways and mass transit. The SCDOT's updated (FY 2003-2004) goal and methodology for its DBE mass transit program, set its participation goal at 3%, and was submitted to the FTA on August 1, 2003.



### Certified DBEs vs. DBE Goal

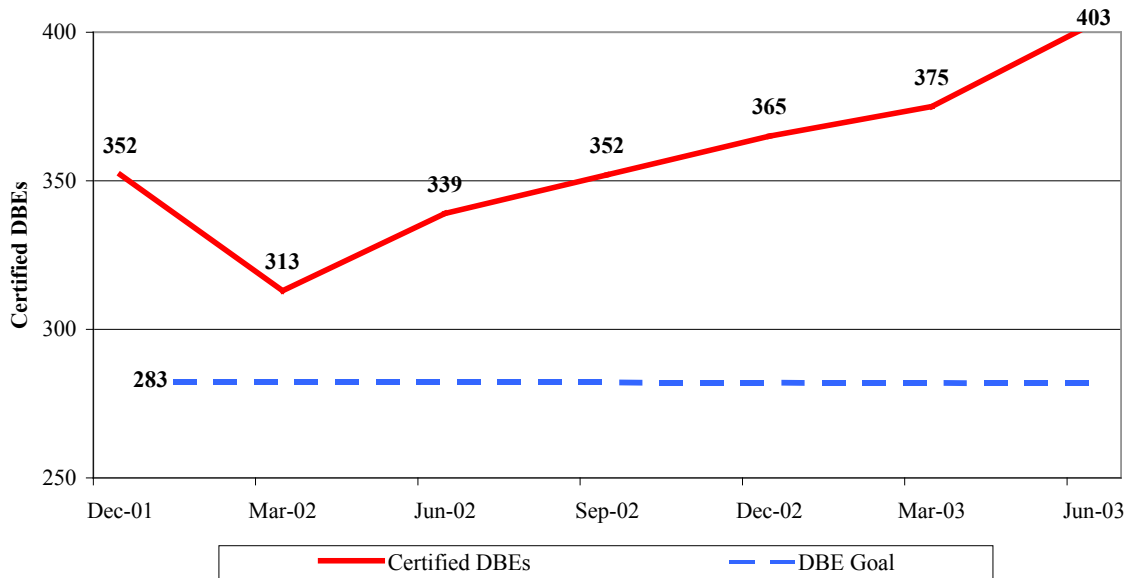


Figure 7-19

The Risk Management Section of SCDOT is responsible for tracking the claims against SCDOT. Claims are filed by citizens across the state that experience property damage or personal injury related to the condition of the road. While the number of claims has remained constant, the number of pothole claims has increased significantly due to the lack of funding for resurfacing.

### Claims Against the SCDOT Through December 31, 2002

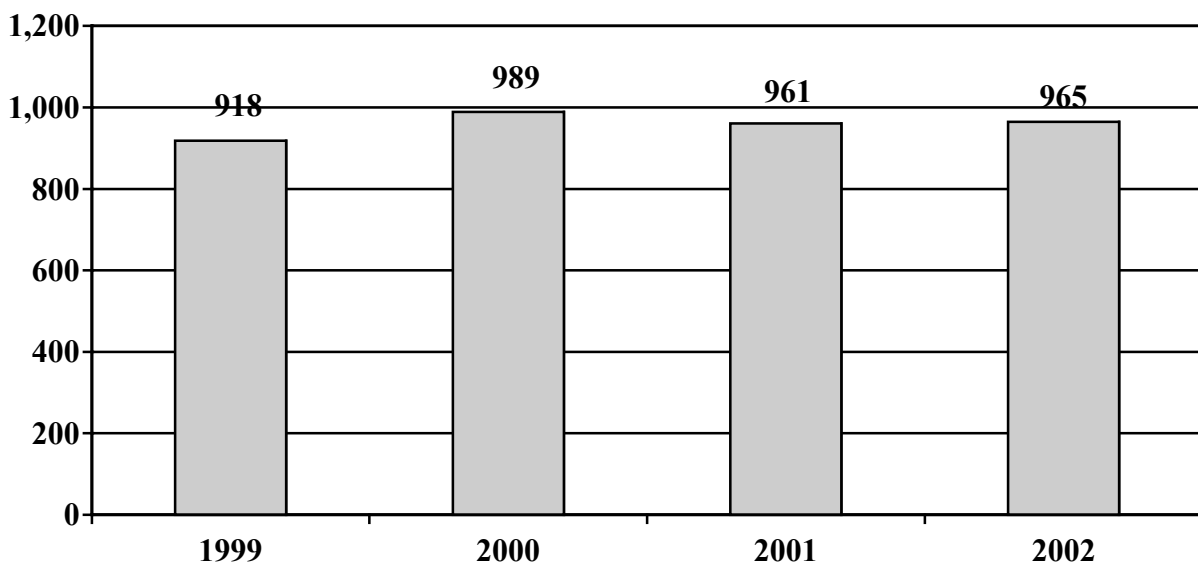


Figure 7-20



## 7.6 Financial performance

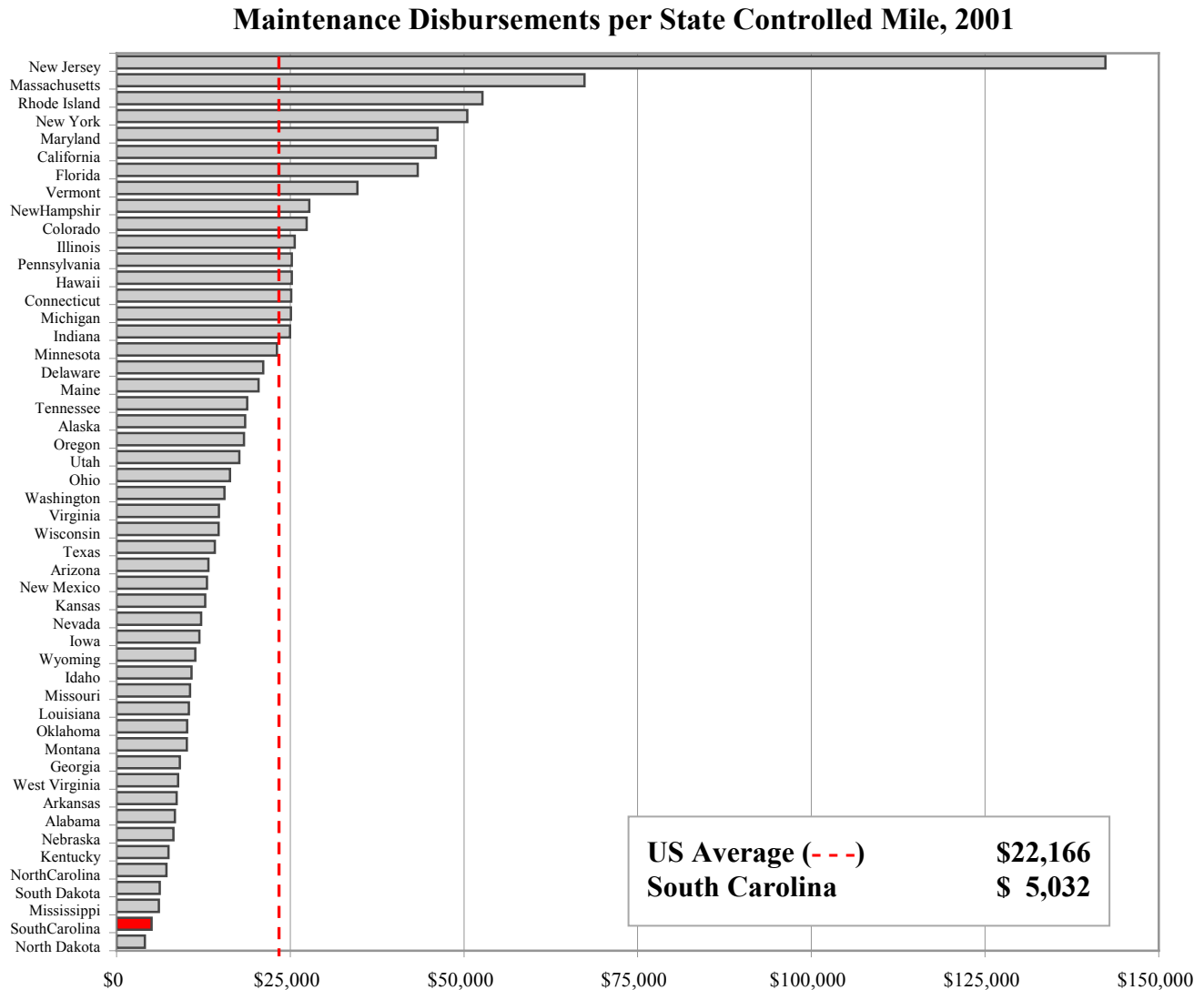


Figure 7-21

SCDOT ranks as one of the lowest in the nation for maintenance disbursements per state controlled mile. The national average is \$22,166 in maintenance disbursements; South Carolina has \$5,032 in maintenance disbursements per state controlled mile.

SCDOT seriously addresses all matters of internal control identified by our external auditors. We work closely with the auditors to understand and implement corrective action that is acceptable to them in every case. For many years there have been NO “questioned costs” or violations of state law identified in our audit report, an accomplishment of no small proportion. For the fiscal year ending June 30, 2002, the number of reportable conditions noted by the auditors was reduced from eleven to seven, but in relative significance, the matters noted have been reduced a great deal more. For fiscal year ending June 30, 2002,



SCDOT was the first DOT in the nation to successfully implement comprehensive GASB Statement 34 and issue financial statements with an unqualified external audit opinion. A copy of this audit report can be found on the State Auditor's website at [www.osa.state.sc.us](http://www.osa.state.sc.us).

The Department was one of the first DOT's to fully comply with GASB 34 (Government Accounting Standard 34 (GASB 34)). This requires the inclusion of the value of all infrastructures in the Department's financial statement.

## Toll Operations

The South Carolina Department of Transportation (SCDOT) currently owns and operates one toll facility in the state, which is the Cross Island Parkway. The Cross Island Parkway (CIP) is a 7.5-mile toll road located on Hilton Head Island. The toll road (US 278) provides an alternative route to the south end of Hilton Head Island and serves as a designated hurricane evacuation route. The Toll Operations Center, which is a unit within the Department of Transportation, oversees the facility that is operated by a private company under contract with the Department.

The Toll Operation Center continues to focus on improvements that are exhibited through the development of an interoperability and reciprocity process between the CIP and the privately owned Southern Connector toll facility in Greenville. Simply put, interoperability allows Pal Pass customers from either facility to utilize both toll roads without using the cash lanes for the customers' convenience. The customers' accounts are charged the appropriate toll electronically and the transaction is reflected in the customer's statement. Reciprocity refers to the exchange of revenue between the toll facilities. The Toll Operations Center expects that this automated function, when implemented in the next fiscal year, will provide a seamless payment plan and an efficient revenue collection process for both facilities and their respective customers.

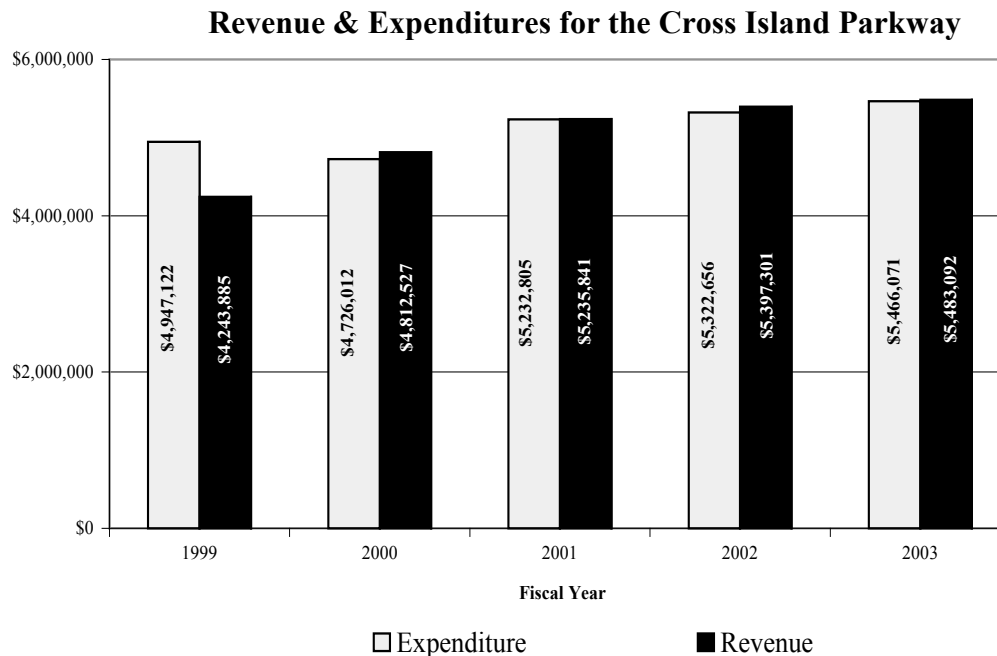


Figure 7-20

## Glossary

AASHTO	American Association of State Highway and Transportation Officials
BMS	Bridge Management System
COG	Councils of Government
CRM	Construction Resource Managers
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FY	Fiscal Year (July 1 <sup>st</sup> – June 30 <sup>th</sup> )
ITS	Intelligent Transportation System
MPO	Metropolitan Planning Organizations
OSHA	Occupational Health and Safety Administration
RTA	Rural Transportation Authority
STTAR	Strategic Training for Transportation Agency Representatives
STEP 21	Strategic Training and Education Program for the 21 <sup>st</sup> Century.
SCIRF	South Carolina Insurance Reserve Fund
TRB	Transportation Resource Board
QA/QC	Quality Assurance/Quality Control
Condemnation rate	The number of land acquisitions where property is acquired for public purposes through legal proceedings under the power of eminent domain.



Rutting

A sunken groove or track made by the passage of vehicles.

